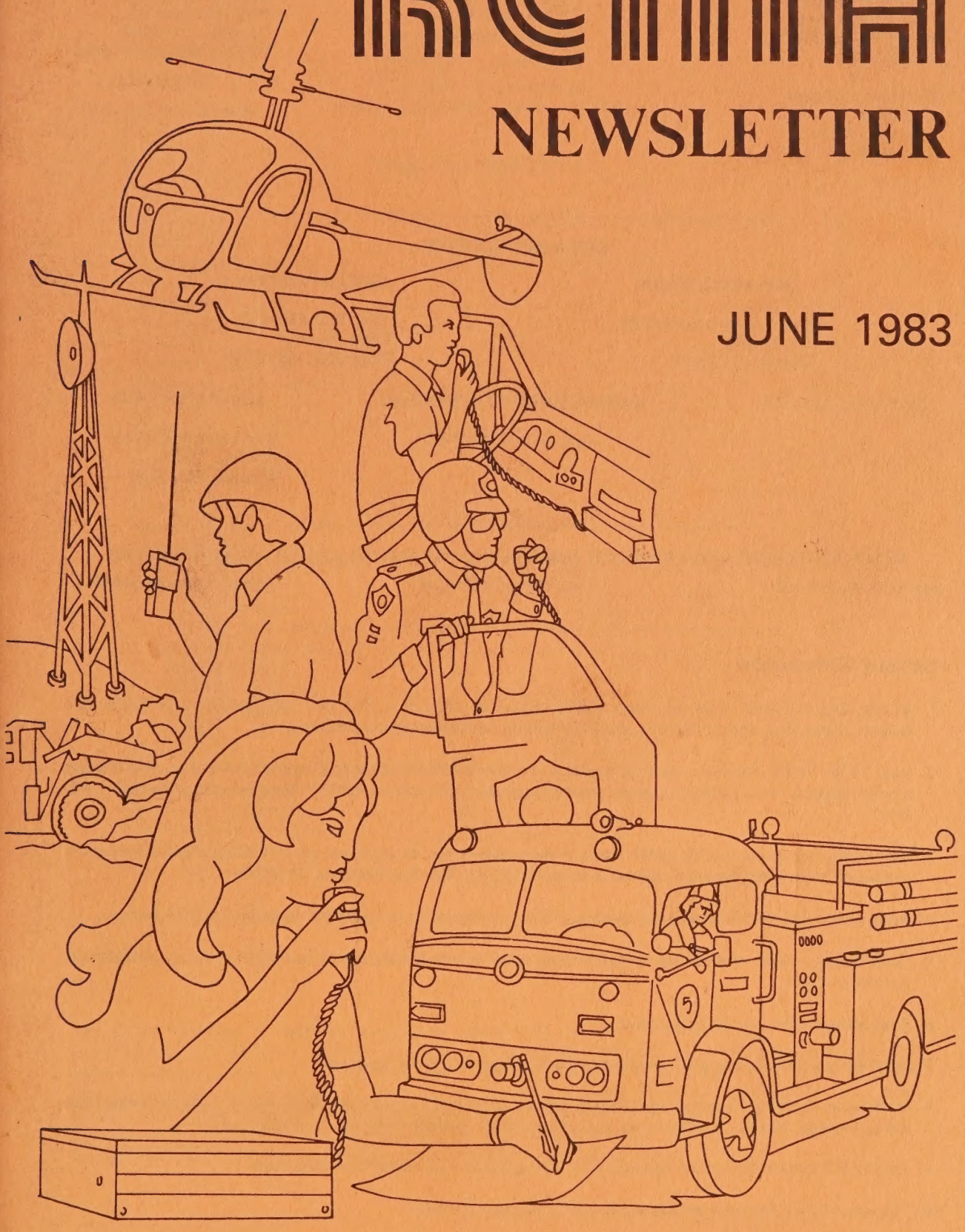
RCMA

NEWSLETTER



JUNE 1983

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OF MONITOR RADIO LISTENERS

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FOR YOUR INFORMATION:

1. All club business, unless otherwise noted, must be addressed to R.C.M.A., P.O. Box 4563, Anaheim, CA 92803. This includes matters that relate to renewals, changes of address, newsletter delivery problems, etc.

2. Input to the RCMA Newsletter must be mailed to the proper editors, whose addresses are included in the individual column headlines. If no particular column seems appropriate, send input to RCMA, 1 West Potomac, Williamsport, MD 21795.

3. To forward a letter to a specific RCMA member whose address you do not know, put your message to that person in a stamped envelope with your return address on it; mail to RCMA, P.O. Box 408, Earp, CA 92242.

4. Please include your RCMA membership number with all correspondence to newsletter editors or club headquarters.

5. If you require a reply when writing to RCMA headquarters or to one of the editors, you MUST enclose a self-addressed, stamped envelope.

6. Please write on only one side of the paper.

7. Please don't combine in one letter several items that should go to different addresses.

8. If you want to type what you submit to the newsletter, please don't exceed a seven-inch column width and please single space. Doing this may save an editor from having to retype the material. Please don't use script type.

9. Your RCMA membership number and expiration date appear on your newsletter mailing label.

10. You may join or renew your membership for ONLY one year at a time.

11. The RCMA Newsletter accepts paid advertising. If you would like to place a paid ad, please write to the following address for our advertising guidelines: RCMA Newsletter, P.O. Box 13602, St. Louis, MO 63138

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Issue 87 June 1983
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The RCMA Newsletter is published monthly by members of the RADIO COMMUNICATIONS MONITORING ASSOCIATION, P.O. Box 4563, Anaheim, CA 92803. Subscription rate/membership fee is $16.50 for U.S. residents. For persons in other countries, the following rates apply: Canada and Mexico $18.50; Europe $20.00, South Pacific and Asia—$21.50. These dues are payable in U.S. funds and are subject to change. Information contained herein is obtained primarily from members and does not necessarily present the position or reflect the opinion of RCMA as a whole. The RCMA does not necessarily recommend or endorse products or services advertised herein. The publication is copyrighted ©
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** Calendar **

Send notices of upcoming events for the Calendar section to:
John Clark, RCMA, P.O. Box 4563, Anaheim, CA 92803.
Please send notices well in advance of the Newsletter deadline.

Greater L.A. Area R.C.M.A. Eric Christensen CALA045 Presiding
--Meetings tentatively scheduled each third Friday of the month--

May 20 FRIDAY Meeting at Mercury Savings and Loan, Valley View and Lincoln, Buena Park, Ca 8:00PM. 2nd Floor. Elevator in back.

Subject of discussion is not available at press time.

June 17 FRIDAY 8:00 PM tour

South Bay Recional Communications Facility
401 Diamond St, Redondo Beach, Ca

Talk in Frequency 144.330 the GORDO cannnel

R.C.M.A. Chicago

Contact Edward Robert Sirovy IL-004 312 969 2856
311 S. Williams Street, Westmont, Il 60559

Meetings: NANCINI'S Resturant 5555 St Charles Road, Berkeley, Il
two blocks east of St Charles Road exit from Eisenhouer Expressway Extention I-290 (phone 312 544 7277)

Visitors are welcome but please confirm the date in advance.

Saturday	June	11, 1983	1:00 PM
Saturday	July	30, 1983	1:00 PM
Sunday	August	28, 1983	Picnic / Field exercise
(write or phone for details about this fun day)			
Saturday	September	24, 1983	1:00 PM
Saturday	November	12, 1983	1:00 PM

A SASE on file assures notification of tours and other item which may be scheduled on short notice.

Austin Area Radio Listeners Meeting
Contact Bob Shrader (512) 926-9516

Tuesday April 19th 7PM 4th floor meeting room
Austin, Texas Public Library, Central Branch

R.C.M.A. Connecticut Chapter

Contact Bill Moore CT 038 203-223-0840
950 Farmington Ave, New Britain, CT 06051

Southern New England Scanners Club

Contact Maurice Dandeneau RI 017 401-828-1641
P.O. Box 7052, Warwick, RI 02887

Calendar continued

R.C.M.A. Minneapolis-St. Paul Area

Contact: Chuck Steier MN-008 (612) 927-9253
4820 Hwy 7, Minneapolis, MN 55416

A SASE on file assures notification of chapter activities (tours, gatherings, etc) non members are welcome to attend.

ATTENTION D.C. AND MARYLAND MEMBERS . . .

Interested in forming a local RCMA Chapter? Contact Alan Henney (MD-069), 6912 Prince Georges Ave, Takoma Park, Maryland 20912.

ANNOUNCING
THE TEXAS RCMA CONVENTION

DATE: Saturday, June 18, 1983
TIME: 1:00 PM until 4:45 PM (Our room reservation states we must vacate the room at 4:45 PM and vacate the premises by 5:00 PM).
LOCATION: The Austin Public (Main) Library—4th floor Meeting Room, 800 Guadalupe St. (intersection of 8th and Guadalupe Streets). The library is on the northwestern corncer of the intersection. Parking is available across the street.

HOW TO GET THERE: Coming from the north and south - Enter Austin on I-35. exit on 15th St., and go west bound on 15th until Guadalupe, turn south onto Guadalupe and proceed until 8th St. You are there.

Coming from the east - Enter Austin on State Highway 71 East. Take 71 westbound until the I-35 intersection. Take I-35 northbound. From this point, continue north on I-35 until the 15th St. exit. Go westbound on 15th St. until Guadalupe, turn south and proceed to 8th St.

Coming from the west - Enter Austin on the combined portion of US Highway 290 W and State Highway 71 W, which becomes part of Lamar Blvd. Follow Lamar Blvd northbound until 12th St., go eastbound on 12th until Guadalupe, go southbound on Guadalupe until 8th St.

NOTE: Guadalupe Street is a one-way, southbound street.

MISC. NOTES: Our original plans were for having a picnic at a park. Unfortunately, due to advance reservations time, no park pavillion was available to us in the month of June. Therefore, the library was our next best option available. We are now trying to line up a little bit more formal program. Since the meeting does not, as yet, have any scheduled speakers, it is hoped that some of the participants can provide an impromptu talk on matters with which they are familiar. With this more "formalized" format of a meeting, the planning committee does not wish to give the impression that this will turn into a board ("bored") meeting. We still intend this to be an informal get-together. Please note the meeting must break up at 4:45 PM, as our reservation stipulates leaving the room at that time and vacating the premises by 5:00 PM. Perhaps we can break up even earlier to allow every one a chance to use the photocopy machine and the microfiche reader before leaving. If enough people find it agreeable, a dutch treat meal at a nearby restaurant can be included in the plans. The planning committee will tentatively reserve the party room at one of the nearby restaurants for this purpose.

TALK-IN COMMUNICATIONS: For those wishing to communicate with one another while enroute to the meeting site, and for those arriving in the morning and wishing to already start meeting each other, the planning committee proposes a talk-in frequency

Calendar continued

for contacting each other:
Ham radio operators---146.34/.94 or 146.28/.88 (stay alert for any on-the-air agreement to change frequency)
CB operators---Try CB Ch. 3
Call for any RCMA member monitoring. Those without any ham or CB radio, program the ham frequencies into your scanner and try and spot us out.

Listening Frequencies: Attached will be a list of active Austin area freqs of interest to most monitorists.

SEE YA'LL THERE AND YA'LL COME !!

NEED BACK ISSUES OF THE RCMA NEWSLETTER?

Lots (Months/Year)	No. of Issues	Price
Sept 75 - June/July 76 (No Oct or Nov published)	7	$2.00
Aug - Dec 76 (No Oct published)	4	$3.00
Jan - June 77	6	$4.00
July - Dec 77	6	$4.00
Jan - June 78	6	$5.00
July - Dec 78	6	$5.00
Jan - June 79	6	$6.00
July - Dec 79	6	$6.00

1980-82 back issues are now available at $1.50 per copy.

The following categories of postal rates are new. Please read carefully

Order Total	Include This Amount of Postage
$ 1.50 - $ 5	$1.00
$ 5.50 - $10	$2.00
$10.50 - $15	$3.00
$15.50 - $25	$4.00
$25.50 - $35	$5.00
Over $35	$6.00

Send your request & check or money order (made out to RCMA) to Secretary Bill Ell:
2831 Hermanos St.
Pasadena, CA 91107

THOUGHT waves

Ginny Slick, RCMA Assistant Editor, 1 West Potomic, Williamsport, MD 21795

Spring is influencing my thoughts today. When you read this it will be June, but as I write it is the 5th of April. Spring is a time of new beginnings, new ideas and hopes for the future. So I find it **particularly** appropriate to devote this column to new policies and new ideas. I am seeking your advice on the development of possible new areas of newsletter coverage. I hope that you will take the time to write and let me know what you think of the ideas sent in by some of your fellow members. Perhaps you'll even have a new proposal to make. This is an opportunity for you to help design your newsletter to fit your needs. Surely this should be of as great concern as the printing of sensitive frequencies. Fill my mailbox!!

Many members expressed a desire to see some sort of computer column. While I think that the computer is of sufficient importance to rate its own club and newsletter, I can see that a column covering the ways in which a computer can enhance scanning could be an asset to the membership. What do you think about this idea?

Several members wanted to see an occasional book review, when a book would appeal to the membership or was relevant to one of the column areas. Would you find such a service worthwhile?

Letters from members who have a genuine desire to serve the club but who do not have a lot of background or experience have led me to propose the possibility of having occasional "guest editors". A member could submit his idea for an article to the newsletter editor and if it proved to be of interest to a large number of members, we could print it. What is your reaction to this idea for more use of member participation?

I'm sure that you are aware that our newsletter depends on volunteer help for the editing of columns. So far as we know, there has never been a firm policy for selecting those editors, or a general outline of what an editor should be prepared to do. This has been of great concern to both our editor, Carol Ruth, and me. We think that we have come up with a policy which would allow each of you a fair chance to become a column editor if you're so inclined. We hope that our guidelines will meet with your approval, as all future editors will be selected accordingly and no exceptions will be made.

Because of the three month time lag, we have had a real problem when an editor chose to give up his column. No one wants to open the newsletter and find that his favorite column isn't there. We'd like to get promises from our editors to give us three months notice of a column vacancy. If an editor wants to resign, we'd like him to inform Carol by the monthly deadline three months prior to the time he wishes to end his term. This will assure continuity of columns while the selection of a new editor takes place.

Should you wish to edit a column that becomes vacant, we'd like to suggest that you follow certain steps.

First, type a letter outlining your qualifications for the position. If you have special helps such as library or computer, please indicate so in your application. To me the most important things are that you have knowledge of the subject, are willing to give of yourself, can type, spell and put together material in a logical sequence. This is of great importance, because our editors are to send in material that is in print-ready condition. If Carol had to re-write and re-type copy, the time lag would be even greater.

Member complaints of non-responsive editors have led us to encourage our editors to let contributors know their material has been received. Some editors may not have the means to answer each letter, but if an SASE is enclosed, every effort should be made to accomodate the member.

We also think that an editor should be able to generate information for his column if none is forthcoming. Keep this in mind as you apply. Some people who have applied are certain that they'll be deluged with information. They have visions of sitting at home, receiving one new freq after another. This is the biggest misconception a prospective editor can have.

Letters of application should be sent to GINNY SLICK, 1 WEST POTOMAC ST., WILLIAMSPORT, MD., 21795. This is very important. If you send your letter to someone else, it has to be re-routed to me and it may miss the deadline set for a decision. Make sure that you have a legible return address in the letter, include your membership number (as only members will be considered) and, if possible, give me your telephone number. If you have followed these instructions, feel assured that your application will receive equal consideration. I will try

at all times to select the applicant with the best set of qualifications who writes within the time limit set for filling the position.

The RCMA Newsletter hopes to be responsive to you. We need your help to do that. In months to come we hope to put forth more chances for you to participate in your newsletter. I think that it would be fun to find out how the majority of our members feel about certain issues or questions facing us as scanner users. Perhaps we could run a monthly question for you to answer and publish the results in a later issue. If these kinds of things appeal to you, please write in. Your response to this column will determine whether we can depend on reader interest and contribution. I will be looking forward to your letters and to your ideas for a progressive Newsletter. In honor of Spring and new beginnings, I'd like to inaugurate a new ending for my column.

Write soon,

Ginny

YOUR THOUGHTS

1 West Potomac, Williamsport, MD 21795

To the Editor:

I think that the Newsletter is Just fine. It is a great way to meet and correspond with other hobbyists. I also appreciate the statewide newsletter which Mr. N.P. Oliver makes possible for us members in Louisiana.

Sincerely,
David Fuller (LA-031)

ASSOCIATION OF NORTH AMERICAN RADIO CLUBS NEWS HIGHLIGHTS

ANARC is a federation of the most responsible, well established radio listening clubs in North America. RCMA attained Full Member status in ANARC in 1977. For a list of the ANARC Member and Associate Member clubs send a self-addressed, stamped business size envelope with your request to the address below.

For an annual subscription to the ANARC Newsletter, send $5 to:
Joe Barr, 1500 Bunbury Drive, Whittier, CA 90601. ($8 overseas subscription.)

ANARC Convention 1983

July 15,16,17,18 1983 Westpark-Best Western Hotel
Rosslyn, Arlington, VA

The hotel is located accross from D.C.'s Georgetown, and is directly on the Metro line. Rates will be $45.00 per night, single, or $22.50 each for a double room. For more information send a SASE to WADXA, 606 Forest Glen Road, Silver Springs, Maryland, 20901, U.S.A.

Central Maryland Dx Association meets on the 2nd Monday of each month. for information contact Tony Kobylski (301) 563 0039

Miami Valley DX Club is holding a meeting in conjunction with the Dayton Hamvention'83. Meeting to be held in the Hara Arena Center

ANARC Continued

Sunday May 1 at 10 AM EST. (ed note--this arrived too late for the deadline, but they may do it again next year)

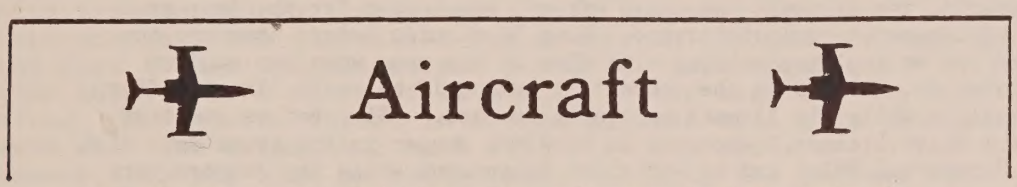
July 1 to 4 International Radio Club of America DX Convention
Details send a SASE to Bruce Portzer, 6546 19th Ave NE
Seattle, WA 98115

Sept 2 to 5 National Radio Club 50th Anniversary Convention
Details send a SASE to NRC, P.O. Box 164, Mannsville, NY 13661. Convention to be held near Hardford, CT

June ?? Southern California CDxers (SCADS) meeting in Escondido, CA
Joint venture with Radio West. Detains send a SASE to SCADS, 3809 Rose Ave, Long Beach, CA 90807

ANARC 84 Two clubs submitting bids Ontario DX Association for Ontario Canada, and Southern California DXers Society for Huntinton Beach, CA

Please note that this year's ANARC Convention program includes a session devoted to "Public Service Bands and Utilities" (Seminar #4, Saturday, 16 July). According to Arlene Luskin, the host club's coordinator, Bob Grove and Hank Halbrook are two of the people who will be discussing these topics. The PSB/Ute seminar is a new feature, and if we want future ANARC Conventions to include something like it, it behooves us to attend the convention this year. Last year, only 3 RCMA members attended - even though we are the largest of all the ANARC clubs. Some of us are working to set up some supplementary event of special interest to RCMAniacs (like a visit to a DC-area dispatch center) - as an extra incentive, and to show the shortwave DXers what VHF/UHF offers. If something does get organized, there probably won't be enough time to publicize it via this Newsletter. So plan to attend, and contact either Ginny Slick or myself to find out if anything extra has been organized. ---Robert Horvitz (CT-048)



Send private, commercial, firefighting and law enforcement aircraft frequencies of interest in the 108-136 MHz range and frequencies in other bands above 30 MHz associated with airports and aircraft plus questions, articles and tips related to aircraft monitoring to:

Darrel Charest, 1459 Monterey Blvd., #293, Hurst, TX 76053

Sooner or later it had to happen, now the pressure is off. Fifty eight years and I finally made a mistake! Missed the May issue of the Newsletter. When you are expected to bat a thousand, one column for two issues is not a good average especially for a new editor.

Although I've been reasonably busy as a free lance flight instructor since retiring several years ago, I had a quiet month in February and decided it might be worthwhile to get into the business full time. Two interviews and six resumes later - it was back to work. How soon we forget - 6AM alarm calls, crowded freeways, messy weather, ill tempered weather briefers and all the other fringe benefits that go with full time employment. Even worse, the bowling has suffered and my golf handicap removes any doubt that I belong in the duffer category. Yet in spite of these crises I find that I've really enjoyed working full time again. It may be that a good school, superb equipment and talented students have colored my attitude some. About seventy five percent of our students come from Europe and the Middle East so we are reclaiming a few of our oil dollars.

Larry Van Horn, our Space Editor, called to say that he is almost a neighbor and an avid listener in the aviation spectrum both VHF and UHF. He also has what seems to be an unlimited source of aircraft frequencies for many areas of the U.S., including controller charts for several Air Route Traffic Control Centers. These charts show the airspace assigned to individual controllers and radio frequencies available for that sector. Larry has had the opportunity

to travel much of the U.S. and by the time you read this he will have returned from a two week vacation in Italy. Courtesy of the U.S. Navy. Some might call it a working vacation. Its reassuring to know who to call when you have a need for frequencies. Thanks Larry.

For those among us who may be addicted to playing those quarter gobbling video monsters, I would say the ultimate video game has arrived. Unfortunately, it is not generally available to the public, for it is being used to train our air traffic controllers. It is called a radar simulator. The targets move much slower on this video game and the object is to keep them apart rather than shoot them down or intercept them. This video game also adds another dimension, the vertical one called altitude to spice up the challenge. If the pace seems slow, just add a few more airplanes. Thrilling? You bet! No matter how good you are, or think you might be, you can be overloaded, and almost any controller will tell you these simulators are worth their weight in gold. Trainees can hone their skills in the simulator without jeopardizing the flying public by training on live traffic.

As you know, a large number of controllers were fired when they went on strike in August 1981. The system and the flying public suffered delays, inconveniences and other problems, but safety was not one of them. Since then a large number of new controllers have been hired and some have completed their training. It will still be six months or more before the ATC system reaches its former capacity, even though press releases might give an earlier date. For those who fly in the system, I know they will be glad to have all the restrictions lifted.

War Stories

Student pilots, as most of you know, are not permitted to carry passengers. One of our usually friendly FAA Inspectors lost some of his good humor when he looked out his office window to find a student pilot he knew loading parachute jumpers in his airplane. To add insult to injury, jumpers are usually paying passengers which requires a professional pilot's license. As luck would have it, the aircraft had taken off and was headed for the drop area before the Inspector could intervene. Some 30 minutes later, however, the Inspector was on the ramp waiting with fire in his eyes when our student pilot taxied in. He greeted the student by asking if he would like to offer an explanation while his license was being revoked. "Sir, before you take my Student Pilot License I want you to know the jumper in the front seat with me is a Commercial Pilot and he was pilot in command while the jumpers were aboard the airplane. After the jumpers left, I became pilot in command, flying the aircraft solo which I am permitted to do."

Some years ago before our scheduled airlines hired women pilots, a rather enchanting female voice came over the radio with this routine call. "Salt Lake Approach this is Western 406 leaving flight level two zero zero for one one thousand with Kilo." The controllers reply "Western 406 Ident turn left heading 070 for radar vector to a visual approach to runway 16 left." This time the voice from Western 406 was much different. A deep bass voice answered with "Roger Western 406." And with absolutely no hint of humor in his voice the controller added "Western 406 your voice sounds much better now that you have loosened your seatbelt."

Over the years the Automatic Terminal Information Service (ATIS) has probably provided the most chuckles for the air traffic controller. As many of you know, the ATIS is a repeating tape that contains weather and runway information and is changed hourly. Each ATIS broadcast has an assigned code so the controller knows the pilot has the latest information. When the pilot fails to give the ATIS code, the controller will ask "Do you have information Kilo" or whatever the current code might be. When the service was new, and the controller asked the pilot if he had "Whiskey" the phoentic code for "W" the response was often hilarious. Recently one of our foreign students here in Ft Worth was asked when he called for taxi clearance if he had information "India". After a short pause the heavily accented reply came back "No I'm from Pakistan."

Preparing written transcripts from tape recordings when an accident or incident had taken place was a task most controllers, myself included, avoided if at all possible. The transcribing was time consuming, boring and tedious. One that was not, remains clearly etched in my memory. One of our A-4s was returning

Aircraft continued

for landing at Lemoore NAS and while the pilot was making his initial radio call, he let out a gasp, almost a scream, as though he had been choked. As the story unfolded, however, this gasp became understandable. For just at the moment he began his radio call, a Western Airlines Lockheed Electra suddenly and completely filled his windscreen. Although the subsequent investigation could never determine exactly how close the aircraft passed, there never was any doubt as to the precise moment it occurred - the moment was clearly marked by the gasp, scream or whatever you might choose to call it. Flying has been described as hours and hours of boredoom punctuated by moments of stark terror. From what I heard on the tape, I would place this in the "Terror" category.

See ya'll next month.

? Beginners ?????? Corner

If you are new to monitoring, or have something you don't understand, please write to me at the address given below and I will try to answer your question. When possible, your questions and answeres will be printed. For those who wish an immediate reply, please send a self-addressed, stamped envelope.

Bob Quinlan, 4243 N. Melvina, Chicago, IL 60634

KNOW WHAT YOU HEAR WHEN YOU HEAR IT!

Hello again -

When you operate your radio you sometimes hear things that you may not understand - strange noises, bell tones, etc., in the background. If it's a channel with brief conversation you may miss a bit of radio traffic. I found a frequency in the government band that gave no call sign or identify at all. What I did was to start taping the radio traffic and to listen to it over and over again. I did this until one day, the dispatcher was giving an assignment, and the phone rang next to him and the person answered,"Good morning #?*". Bingo! After about 2 or 3 hours of listening to the tape the big mystery was solved. Sometimes, noises in the background will give you ideas, or maybe what the dispatcher says will give you clues as to their identity. Streets near the base or radio tech. checking the network will say, " Radio shop checking on Zone One - Kaz 998 Chicago Police Dept." If you find a hot, hot channel and draw a blank, or you hear a good raid or an arrest and have no idea who it was, check the local paper, and see if anything shows up in a small article on the back page. See if the info you heard matches the article or the time of day. Remember, what you hear is not to be told to others as per the Secrecy of Communications Act - 1934.

A good advantage of taping radio traffic is not having to sit 24 hours at the radio. Sometimes a gem of a find will come along. A friend of mine, Ron G/ IL6, from a north suburb, taped his local Police Dept. overnight to try to determine the beats in his city, and found something unbelievable! It starts out at 5 AM with a beat car spotting a strange light flying low over his head and wanting to report an arial phenomenon, or UFO. He called his base and asked them to contact the control tower at O'Hare Airport to see if they had any low flying aircraft in the area. The base had calls from 3 other suburbs making the same inquiries about the visual siting. They called Glenview Air Station and O'Hare and had received no reports of take-offs or landings in the last hour. The officers asked to go to a higher elevation to an overpass close by in order to get a better look, and follow it for a while until it disappeared. Towards the end of the tape one could hear a practical joker say, "I wonder if he has any Reese's Pieces", and then, "Did you see anything, Ron?" Reply - "No, Dennis, did you?" "No, not me, either."

Well, you won't always get UFO sightings ... but you never know <u>who's</u> listening!

Happy Monitoring
Bob IL-157

BELOW 30 MHZ

Robert Horvitz, editor

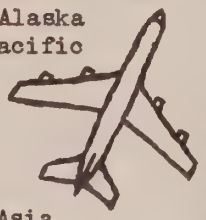
This column is for AM, SSB, RTTY, CW & FAX reception reports, explanatory notes, articles, news & questions related to HF utilities. Services covered in this column include civilian aeronautical, coastal/marine, government, military, weather, etc. – essentially everything except broadcasting, CB & amateur radio. Send to: Robert Horvitz, 54 East Manning St., Providence, RI 02906

Uerlings' Aero Quick-List

Thanks to Jim Uerlings (OR-024), we have a frequency-order synopsis of the world-wide civil aviation HF SSB channel plan that went into effect last Feb 1. "The list was prepared from info contained in RCMA last year, from the Federal Register and from my own monitoring", he says. So while this isn't new data, Jim's put it into a form that is a helluvalot easier to use than any of the source lists, and that's why I think it deserves your attention. In fact, I'm sorry I didn't think to present the plan this way the first time around. Jim adds, "I would also like to hear from any members who listen to these frequencies, to exchange info and possibly tapes of monitoring." His address is: 3908 Kelley Drive, Klamath Falls, OR 97601.

AF = Africa
aln = Aleutians
CAR = Caribbean
CEP = Central East Pacific
csea = Central & SE Alaska
CWP = Central West Pacific
EA = East Asia
EUR = Europe
INO = Indian Ocean
MID = Middle East
NAT = North Atlantic
NCA = North Central Asia
NP = North Pacific
SAM = South America
SAT = South Atlantic
SEA = Southeast Asia
SP = South Pacific

' = verified by monitoring



2851 AF Test
2852 CAR
2854 SAT
2866 Alaska
2869 CEP
2872 NAT
2875 csea
2899 NAT
2911 aln csea
2932 NP
2935 SAT
2944 SAM MID
2956 aln
2962 NAT
2971 NAT
2992 MID
2998 CWP
3004 NCA Test
3016 NAT EA
3019 NCA
3413 CEP
3419 AF
3425 AF
3443 Test
3449 Alaska
3452 SAT
3455 CWP CAR
3467 SP MID AF
3470 SEA csea
3473 MID
3476 NAT INO
3479 EUR SAM
3485 SEA EA
3491 EA
4384 Alaska
4657 CEP AF
4666 CWP NAT
4669 SAM MID
4678 NCA
5451 Test
5469 Test
5493 AF
5496 aln
5520 CAR
5526 SAM
5547 CEP'
5550 CAR
5559 SP
5565 SAT'
5571 Test
5574 CEP'
5598 NAT'
5616 NAT'
5628 NP'
5631 Alaska
5634 INO
5643 SP
5646 NCA
5649 NAT' SEA
5652 CWP AF
5655 SEA EA
5658 MID AF
5661 CWP EUR
5664 NCA
5667 MID
5670 EA
6532 CWP
6535 SAT
6550 Test
6556 SEA CWP
6559 AF
6574 AF
6577 CAR'
6580 csea
6586 CAR'
6592 NCA
6598 EUR
6604 csea
6622 NAT
6625 MID
6628 NAT
6631 MID
6649 SAM
6655 NP
6661 NP
6673 CEP AF
8822 Test
8825 NAT'
8831 NAT
8843 CEP'
8846 CAR'
8855 SAM' aln
8861 SAT'
8864 NAT'
8867 SP
8876 csea
8879 NAT' INO'
8891 NAT'
8894 AF'
8897 EA
8903 CWP' AF'
8906 NAT
8918 MID CAR'
8942 SEA'
8951 MID
10018 MID
10024 SAM
10042 EA
10045 Test
10048 NP'
10057 CEP
10066 SEA' Alaska
10081 CWP
10084 EUR SP
10096 SAM' NCA
11279 NAT
11282 CEP'
11288 Test
11291 SAT
11300 AF'
11306 Test
11309 NAT
11327 SP'
11330 NP AF
11336 NAT MID
11357 csea
11360 SAM
11363 Alaska
11384 CWP
11387 CAR
11396 SEA EA CAR
13273 AF CEP
13288 EUR MID AF
13291 NAT
13294 AF NP'
13297 SAM EA CAR
13300 CWP NP SP CEP'
13303 EA NCA
13306 NAT' INO
13309 SEA EA
13312 MID Test
13315 SAT NCA
13318 SEA
13357 SAT
17904 CEP' CWP NP SP
17907 CAR SAM EA SEA
17946 NAT
17955 SAT
17958 NCA
17961 MID EUR AF INO
17964 Test
21931 Test

The following freqs have also been monitored since Feb 1 but are not scheduled to be active:
5554 CEP
8826 ? (Spanish)
8927 Cuba/Aeroflot
8959 SAM
10077 EUR?
13354 CEP

Our Public Safety/Southeast editor, Bill Mauldin, forwarded a report from Bill (MS-020) that 3133 kHz was very active in late Feb/early March between 0600-0930Z, carrying traffic from what may have been "some E-2Cs flying in southern Florida... Seems every night they change the callsigns." I tuned in a few times in mid-March; heard nary a peep. But this freq may bear watching in the future. (Thanks to both Bills.)

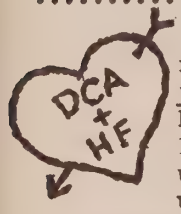
Below 30 MHz, continued

Another tantalizer: an extremely tight land mobile security operation heard on 7520 kHz early last March - radio checks between "Kilgore" & "Butter 99" every few seconds for over an hour, then they switched to "a secure frequency". Hmmm.

Very Low Frequency (VLF) Use in Canada

kHz			
10.6000	XKD538	Belleville, Ont	Belleville General Hospital
11.4000	"	"	"
12.1000	"	"	"
13.0000	"	"	"
13.9000	"	"	"
14.8000	"	"	"
18.1000	"	"	"
19.3000	"	"	"
20.6000	"	"	"
22.0000	"	"	"
23.5000	"	"	"
25.2000	"	"	"
26.9000	"	"	"
28.7000	"	"	"
13.2000	XOB31	Vernon, BC	BC Hydro & Power Authority
20.0000		Pasqua, Sask	Saskatchewan Power Corp
"		Saskatoon, Sask	" " "
28.0000		Regina, Sask	" " "
"		Saskatoon, Sask	" " "
27.1000	XNT546	Winnipeg, Man	The Franco-Manitoban Cultural Centre
20.0000	VE9MX	Toronto, Ont	Cdn Motorola Electronics Ltd
27.2000	XKD83	Toronto, Ont	Fairview Corp Ltd
28.0000		Micoua, PQ	Hydro Quebec

—from Guy (CAN-031) Thanks!



If there's such a thing as stardom in the world of military hightech, being discussed in the "View from the Top" column of Military Electronics/Countermeasures is probably it. Guess who starred in the February 83 issue? HF radio! Waxing enthusiastic about it was Lt. Gen. William J. Hilsman, Director of the Defense Communications Agency. Subtitle of the interview was "To military users who laud satellite communications, the DCA Director warns: 'Don't rely on just one system'." Here's the relevant excerpt:

HILSMAN: I think there's a clear recognition that we need better balance. A step toward achieving that balance is in the field of high-frequency radio. In 1979 the Army came back into the HF business. The reason was two-fold. One involved the "all the eggs in one basket" aspect; the second involved improved HF propagation over a given path through sensing/sounding. While the high-frequency radio was a pain in the neck some years ago - if you got 35% availability on it you were lucky - today we're getting better than 90% availability on HF nets. What the guys were suffering with in the past was the frequency problem. The frequency propagation prediction was handled in the past with a frequency chart, put out a year in advance, that said on this day at this hour this frequency would be good. It was right about 35% of the time, so you got about 35% useful availability. Now we have sensing equipment off the shelf - it's in the field now - and we're sensing the atmosphere real time. As the frequency starts to go, you dial along other frequencies and find the ones that are good. As the one you're on continues to go you say, "Switch to this new one," and everybody goes to the new frequency. We're able to move the nets back and forth across the frequency spectrum in a way that we weren't able to do in the past.

ME/C: Is this like the ionospheric sounder?

HILSMAN: Yes, it is a sounder; it's called the "Chirp Sounder". It's Air Force developed. The Army is buying them off the shelf from DCA. We're putting them in the DCS HF entry sites.

ME/C: What else is new in the HF arena?

HILSMAN: The new HF radios - they're super! They are so much simpler. The Army

just bought a radio off the shelf that the Marine Corps developed. It's just one small box; you dial the frequency, hit the "push-to-talk" button, and that tunes it. Before, you had to tune a lot of dials and get everything lined up and balanced. Now you just use the push-to-talk switch on the handset; it tunes the radio automatically. The radios that are now being developed are capable of sounding themselves. The net then is changed by net control sending out a signal that says, "change frequencies", and they all change. [The push-to-talks may be the AN/PRC-104 manpacks. -H]

ME/C: What about survivability of the satellite systems?

HILSMAN: We are moving to more survivable satellite programs. UHF isn't very survivable. It can be jammed by most kids with some smarts in radios. SHF is more survivable, but still does not meet our full requirements. We recently launched the first of the DSCS III satellites; it's up there today. It has more survivability... There will be eight control stations rather than one, spread all around the world. With the jamming threat that the Soviets have clearly demonstrated and have espoused in their literature, there's no doubt that we're going to have more even beyond the DSCS strategy into the EHF world where there is even a greater degree of survivability against electronic jamming attacks. That's where the MILSTAR program comes in, the program for the strategic forces...

ME/C: What will you be pushing in the upcoming budget cycle?

HILSMAN: I think the satellite programs that we have are the ones that offer the nation the greatest opportunities for the future. I'm also very, very strong for the HF program...

HILAT

Another piece of military HF news - The US Air Force plans to launch a satellite this summer to study the ionosphere and "the distorting effects that structured plasmas have on radio-frequency communication and radar signals propagating through such plasmas". Called HILAT, the spacecraft is a modified Navy/RCA platform stabilized in three axes, carrying five measuring instruments. It will be launched into polar orbit to get ample and frequent views of the auroral regions. The instrumentation includes an auroral/ionospheric mapper (to measure the visible and ultraviolet auroras), a beacon to measure signal scintillation, a magnetometer to measure field-aligned currents, an ion drift meter and a particle detector. The beauty of this package is that it will provide all these measurements simultaneously and from a single, moving viewpoint in the best viewing regions. HILAT may do for ionospheric propagation what the NOAA satellites have done for meteorology. It would be nice to know what the downlink frequency is, and what kind of displays are at the receiving end, but Aviation Week & Space Technology (31 Jan 83), which provided the above description of HILAT, didn't include those details. I hope to have more info about this project later.

Meanwhile, here's more information from the 1982 Dial Guide (Sansai Books), thanks to our stalwart translator/contributor from Tokyo, Heihachiro Okamoto:

KDD Ship/Shore Public Radiotelephone Service - Above 12 MHz

Ship	Coast
12348.6	13119.4
12364.1	13134.9
12382.7	13153.5
16469.3	17242.2
16484.8	17257.7
16556.1	17329.0
22080.6	22676.6
22108.5	22704.5
22120.9	22716.9

Frequencies below 12 MHz were included in the list published in the April issue. These frequencies all SSB kHz. Callsign for all stations is JBO. You can call someone on-board ship by dialing 045-201-2181 in Japan. "Times of operation" given as 9:30, 11:30, 13:30, 15:30, 17:30, 19:30 and 21:30 Japan Standard Time. Does this mean calls are only put through at these times, or are these traffic-list broadcasts? Surely the service must operate for more than seven moments a day! Coast stations all 10-kilowatters.

遠洋船舶公衆 ---name of this service in Japanese

Last But Not Least: Part of a Letter from Bob Rankin (KS-001)

Well, I finally sold my FRG-7000. It was useless as a backup receiver because of drift. Naturally the money was burning a hole in my pocket, so I went right out and bought a new Kenwood R-2000. You've seen the specs and know the set's capabilities and you also know what kind of listening I mostly do, so you probably won't be surprised to learn that the R-2000 is absolutely ideal for someone like me. After a short warm up it is ablsolutly rock stable. The squelch is useful for certain applications like making VOX tape recordings while I am at work. Sensitivity and selectivity are perfectly adequate for utility work. With the scanning feature I can be 9 times as nosey as I was before. It has been very useful already. Other receivers have bigger memories, but 10 channels is about all you can scan without missing transmissions. For utility

Below 30 MHz continued
listeners the lack of a fine tuning control is not serious, but that, combined with a serious overload (intermod) problem on the crowded broadcast bands at night, will make the R-2000 unattractive to SWBC band DXers. I can always revert to the R-7 if I have problems on a particular channel. For utility exploring, the R-2000 is a real windfall!

Business, Etc.

This column is for reporting frequency and radio system information for the following varied services: business, forest products, petroleum industry, special industrial, manufactureers, news media (behind-the-scenes radio, TV & newspaper), motion picture industry, security (private patrol, detective agencies, campus security & police, amusement park & stadium security, shopping center & mall security, plant/business/hotel security, etc.), General Mobile Radio Service (GMRS), mobile phone/RCC & paging, trucking firms, bus lines, taxi cabs, tow trucks, utility companies (private & municipal water, power, electric, gas, telephone, etc.), and all school & college related frequencies. Send information and questions pertaining to the radio services covered in this column to:
Brandt Niemuth, P.O. Box 541, Rosemont, IL 60018

TO ALL R.C.M.A. MEMBERS

THERE COMES A TIME FOR EVERYTHING WHEN ALL GOOD THINGS MUST COME TO AN END. DUE TO MY WORKLOAD HERE AT HOME SINCE TAKING THE BUSINESS COLUMN OVER LAST YEAR I HAVE HAD TO CHOOSE EITHER MY WORK WHICH PAYS MY BILLS AND OTHER THINGS OR TO STAY WITH THE BUSINESS COLUMN. OF COURSE I CHOSE THE OTHER!!

EFFECTIVE IMMEDIATELY, BRANDT NIEMUTH OUR PUBLIC SAFETY GREAT LAKES EDITOR HAS OFFERED TO TAKE THE COLUMN FROM ME WHICH HE HAS PLENTY OF TIME TO DEVOTE TO THE COLUMN THAN I DO. ALL MATERIAL SENT TO ME AND THOSE WHO STILL SEND IN MATERIAL FOR THE COLUMN, HAVE BEEN AND WILL BE SENT ON TO BRANDT.

I, AT THIS TIME, WISH TO THANK ALL MEMBERS WHO HAVE BEEN SO GENEROUS IN HELPING WITH THE COLUMN AND MAKING IT WHAT IT IS TODAY. I DO HOPE ALL OF YOU WILL CONTINUE YOUR SUPPORT IN KEEPING BRANDT SUPPLIED WITH YOUR EFFORTS.

SINCERELY, Larry

LARRY [MI-001]

Greetings:

As your new "Business, Etc" column editor, I would like to introduce myself; My name is Brandt Niemuth, P O Box 541, Rosemont, Ill 60018. For those of you who have followed the Public Safety - Great Lakes column, the rest is history. For the benefit of all, let it be known that my true passion - scannerwise, of course - is within the confines of the hobby known as business band listening. It is here that you can pick up on the special tidbits that can not be found under any other heading.

My desire for this column will be to insert as much of the material that is sent to me as the powers to be will allow. It is also my desire to show that the "Business Band" does occupy a major portion of our hobby and it or any other part (Public Safety, Aircraft, Military, etc) is not the only aspect of our hobby. For those of you who have met me and have seen the material that I have (Chicago area only), for the most part, can agree with me.

For Those of you who have sent in material in the past, myself included, I Hope that you will be patient with me as your new "Business, Etc" column editor. Upon inheriting this column from the previous editor, I also inherited quite a backlog of material which I will attempt to include as time goes on, as well as space will permit. With your help, we can turn this into the best column in the newsletter.

To start things off, here is some material from Bob (MI-108) for the Detroit area.

Neal CA LA 385 has sent in some material and asks for help with the missing info in the list.

For the last few months I have scanning the local news frequncies in the Detroit area. With the help of special programing obtained from Dennis Biagioli editor of the Federal Goverment column of the RCMA newsletter I was able to program my BC250 for frequencies not normaly programed on the BC250. Now I wonder how many stations I have missed? Dennis printed his instructions in the January 1983 newsletter.

These frequencies are the active ones. I monitored these stations with the help of a tape recorder to obtain some of the less active ones and the call signs when they were used.

The stations are most active in the afternoon when the TV Stations are preparing for the evening new broadcast or when a big story is in progress, such as a plane crash, chemical spill or large fire. Then most of the news stations can be heard with instructions for the news crews and scripts being read over the air. Also heard are the radio on the scene reporters and traffic copters. The newspapers do not seem to use the radio as much as the broadcasters. The inclosed list of stations should explain themselves.

Many other stations are licensed for other frequencies but if I did not hear them I did not include them. Perhaps other members in the Detroit area can add to this list.

WJBK TV-2 Storer Broadcasting
166.25 KLM573-KS3912 called the 150 radio newsroom-reporters
450.050 Studio TV Broadcast
455.050 KYY292-KQB912 called the 450 radio newsroom-reporters

WDIV TV-4 Post Newsweek Broadcasting
450.0875 KRG606 newsroom-reporters
450.3875 276 newsroom-reporters
450.5875 248 newsroom-reporters
The different channels are refered to by the numbers in the call sign

WXYZ TV-7 American Broadcasting Co.
161.700 KJL529 production Office
455.6125 WYR215 newsroom-reporters
455.650 WYR216 newsroom-reporters-studio
The different channels are refered to by the numbers in the call sign

WKBD TV-50 Field Communications
173.275 KLP349 Newsroom-reporters and mailcar

WJR Radio 760 AM Capital Cities
450.750 KQJ266-KK5634 newsroom-reporters Michigan Emergency Patrol (MEP) relays traffic reports on this frequency.
455.750 traffic copter

WWJ Radio 950 AM Evening News Association
450.2125 WZB706 newsroom-reporters ch. 1
450.4875 WZB706 newsroom-reporters ch. 2 traffic copter

WCXI Radio 1130 AM Golden West Broadcasting
450.1125 KQA981 newsroom-reporters

WMUZ Radio 103.5 FM
161.700 K03333 Remote broadcast

Detroit Free Press Knight-Ridder
173.325 WR0609 security at riverfront plant
452.975 KUU697 advertising pickup

Detroit News Evening News Association
453.000 KVX238 photographers-reporters

Macomb Daily Macomb Publishing
452.975 WYL753 circulation

Oakland Press Capital Cities
173.375 KCJ938-KZ2709 circulation-photographers

Metro Traffic
464.550 WSM395 traffic reports from Detroit area streets and broadcast on several Detroit area stations

Detroit News Evening News Association
453.000 KVX238 Photographers-reporters
461.300 KZK72-KKL87-KL2002 advertising pick up-security at Detroit office
464.725 KZK72-KL2002 security at North Plant (Sterling Heights)

Michigan Emergency Patrol (MEP)
462.575 KAC5455 traffic reports from Detroit area streets and broadcast on several Detroit area stations
Also relays reports to WJR radio on 450.750 KQJ266. Also receives reports on CB ch. 9 KBW5826

Business, Etc. continued

161.700 KJL529 WXYZ TV-7
161.700 KO3333 WMUZ 103.5FM Remote
" Broadcast
166.250 KLM573-KS3912 WJBK TV-2
173.275 KLP349 WKBD TV-50
173.325 WR0609 Detroit Free Press
173.375 KCJ938-KZ2709 Oakland Press
450.050 KYY292 WJBK TV-2
455.050 KYY292 WJBK TV-2
450.0875 KRG606 WDIV TV-4
450.1125 KQA981 WCXI 1130AM
450.2125 WZB707-WZB706 WWJ 950AM
450.3875 276 WDIV TV-4
450.4875 WZB706 WWJ 950AM
450.5875 248 WDIV TV-4
455.6125 WRY215 WXYZ TV-7
450.650 WXYZ TV-7
455.650 WYR216 WXYZ TV-7
450.750 KQJ276 WJR 760AM
455.750 KE3774-KK5634 WJR 760AM
452.975 KUU697 Detroit Free Press
452.975 WYL753 Macomb Daily
453.000 KVX238 Detroit News
464.550 WSM395 Metro Traffic
462.575 KAC5455 Michigan Emergency Patrol

LOS ANGELES AREA UTILITY FREQUENCIES--From: Neal CA LA 385

47.700 KLG 739
47.740 Landcaster Water Dept.
47.820 KSL 726
47.840 Southern Calif. Edison-Covina
47.900 Oxnard Water Dept.
48.040 Southern Calif. Edison-Malabu/Ventura
48.060 KMG 971
48.220 Park Water Co.
48.260 KSL 722
48.480 Las Virgenes Water District-Calabasas
48.540 KFP 302
153.725 KZH 794

AND HERE ARE SOME NON-UTILITY FREQUENCIES

152.405 Yellow Cab-Van Nuys
152.315 Yellow Cab-Van Nuys

AND IN SAN DIEGO...
151.895 Hotel Del Coronado

CANADA

Send Canadian frequency information, radio system details and other information relating to Canadian monitor radio listening and questions to:
Robert Berezowski, 5832 Dalhousie Drive NW, Calgary, Alberta T3A 1T1 Canada.

Welcome all to the June Canada column. This is being written at the end of March. The last day of classes is only a couple of weeks away. Then the finals, then it is all over, one way or the the other. A long standing tradition at the U of C is Bermuda Shorts Day. This occurs on the last day of classes. Without going into too many details, anything goes. This means water bombs, fire hoses, whipping cream, etc, etc. The dean's office frowns on this in class, and of course they don't like fire hoses being used, but they don't try to stop it. This year it looks like snowballs will be popular. One of our contacts in "Artsie land" (read "spy in the other faculties") reports that the atsies are planning something

big to get even from last year,.... More to follow, if I survive.

Here are some more moldy oldies. From Harry(CAN-074) comes some information on Red Deer municipal government. As far as Harry knows, Fire and Ambulance are still on 154.370, but the other agencies have moved to UHF. Electric Light and Power are now on 413.1125, Engineering is on 412.5125, Water is on 412.7125, and By-Law Enforcement is on 412.8125. Hopefully Harry can find some more frequencies if he ever finds himself in Red Deer. Thanks for the info Harry, and sorry about the delay.

Burt(CAN-011) sent in some information on the Stratford Police Dept. The department dispatches the small police forces in the surrounding area. Each town has its own repeater, but they are all simulcast, allowing officers in one town to communicate directly with officers in another town. Frequencies include:

Stratford 142.095
Tavistock 142.425
Mitchell 142.995

Burt also sent in an article describing a similar system operating in Huron County. He also sent in a procedure to force the BC220RT to search in the 142-144 MHz range. I am sorry that I do not have room to print more details from Burt's letter, but if any member wants any more information or clarification of the information that Burt sent in, just drop me a line and I will send a photocopy of Burt's letter.

Bruce(CAN-019) sent in some lists of information quite awhile ago. To close off this column I will include one of the pages. The one I have selected is for the Durham region. I will include more in later columns. The asterisks indicate that Bruce has personally confirmed the frequency as active.

I am sorry that this column has been so brief. I have not had the time to properly organize. I still have some rather old material that should be printed, but this material will be included in next months column. I will be writing that column after my finals, which are quite promising. Have you ever had that feeling of impending disaster? As a friend of mine said, it is all in the theory of relativity. As long as we are on the curve, you can pass the exam with 11%. See you all next month.

DURHAM REGIONAL FREQUENCIES

Emergency Services

Police

42.000*		O.P.P. W.T. Air-to-Ground
42.060*		O.P.P. #5 District Bases & Common Car-to-Car
42.220*		O.P.P. Mobiles to 42.060 Bases
142.185*	R	Durham Regional P.D. Ch 1
142.575		Durham Regional P.D.
142.590*	R	Durham Regional P.D.
142.620*	R	Durham Regional P.D. Ch 2
142.665		Durham Regional P.D.
142.815*	R	Durham Regional P.D. (West)
143.100*	R	Durham Regional P.D. (North)
149.695		Durham Regional P.D. W.T.
460.5625		Durham Regional P.D.

Fire

153.860*	Durham Region	- Oshawa - XJI 72 - Pickering - XJH 346 - Ajax - XJI 43 - Newcastle - XJH 494 - Whitby - XJH 49
154.555*	Oshawa	
153.125*	Newcastle	
153.155*	Oshawa Ajax Whitby	
154.145*	Oshawa	

Canada continued

153.550* Pickering
154.400* Newcastle (Old - may still be in use)

Ambulance

150.100* O.H.A.S. Provincial Common
149.470* Oshawa
155.190* R Oshawa/York Region/Brampton (149.470 Input)
149.605* Oshawa - Telemetery
411.6875* Oshawa/York Region
418.6875* Helicopter Ambulance
129.275* Air Ambulance Service Emergency Channel

Oshawa Airport

120.100 Tower
121.600 Ground Control
127.000 Toronto East Arrival Control

Municipal

168.135 P.W.D. Oshawa
169.260 P.W.D. Oshawa
164.940 Garbage - Oshawa
153.590 P.U.C. - Oshawa
169.530 Hydro
168.270* R Durham Regional Roads
168.960* Durham Regional Roads
164.115 P.W.D. - Pickering
164.385 Durham Region
157.680 P.U.C. - Whitby
158.775 P.W.D. - Newcastle
454.0250 R Oshawa Transit

143.865* R M.T.C. Ch 4
143.940* R M.T.C. Ch 6 - Port Hope
143.970* R M.T.C.
162.475* Weather - XMJ 225 Toront
154.145 Cable T.V. - Oshawa ?
161.415* C.N.R. End-to-End Ch 1
161.205* C.N.R. Dispatcher Ch 2
161.475* C.P.R. End-to-End Ch 1
161.025* VIA Dispatch
161.295* "GO" Dispatch
168.120 "GO" Transit

(09/82)

contact/info wanted

This column has two purposes: to help members contact each other, and to help members obtain information directly from one another on various subjects related to 2-way communications monitoring. If you desire to converse, meet, or correspond with other members by telephone, letter, or cassette tape in a certain geographic area or with members who have similar listening interests, this is the perfect place for you to make known your interests. Remember – those who respond will do so directly, so be sure to provide your phone number, the best time to be called, or your address. Write to: Amy Polivka, 12906 Ohio Circle, Omaha, NE 68164

ATTENTION PICA MEMBERS: This member wishes to establish correspondence with RCMA members who are also PICA members. He has relocated and is in the process of changing departments. (3-1-83)
TREY OLIVER (NC-029), Rt. 2, Box 188-U, Springfield, LA 70462

WINDY CITY AMATEUR RADIO BUFFS: This member would like to correspond with other RCMA members who are licensed amateur radio operators for the purpose of forming a net, either on HF or VHF. If a net has already been in existence, please inform him of the frequency, date, time, etc. (3-2-83)
WILL SPERLING (IL-116), WA9YHX, P.O. Box 40, Westmont, IL 60559-0040

NEBRASKA AND IOWA CODES: Please send the codes of Omaha and Council Bluffs police, fire and rescue to the below-named member. He also desires codes for Douglas and Pottawattamie County Sheriff's Depts. and Nebraska and Iowa Highway Patrols.

ALSO: Anyone interested in forming a local RCMA chapter in the Iowa-Nebraska area, please contact this member. (3-6-83)
GUY A. KROGER (IA-002), Box 455, Council Bluffs, IA 51502

INFORMATION WANTED: Looking for Amtrak and police ten codes for the Connecticut area. (3-7-83)
EDWARD H. DUFOUR (CT-005), 21 Sioux Rd., East Hartford, CT 06118

EAST COAST CHAPTER? This member wants contact from people in the Maryland, Washington, D.C., Virginia and Delaware areas for the purposes of starting a local RCMA chapter. He's also interested in making a scanner guide. Contributors will receive a free copy of the scanner guide. (3-25-83)
ALAN HENNEY (MD-069), 6912 Prince George's Ave., Takoma Park, MD 20912

FEDERAL GOV'T and MILITARY

Send all Federal Government and Military frequencies (including those of military aircraft), radio system details, and related questions to:
Dennis Biagioli, 607 W. Pleasant Ave., Villa Park, IL 60181

Sensitive frequencies will not be published. Coast Guard material must go to the VHF Marine editor.

DVP BEING BROKEN LEFT AND RIGHT

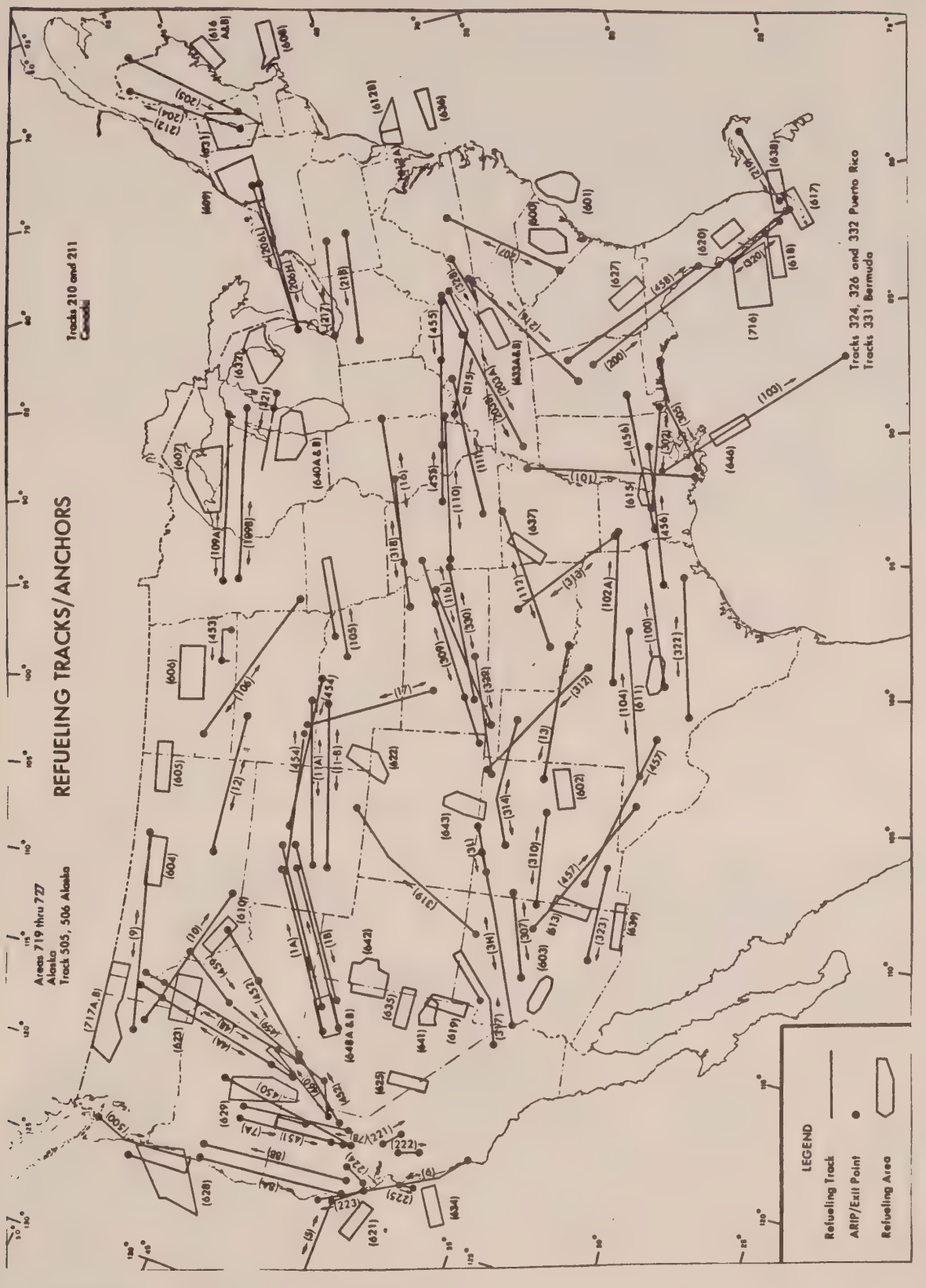
Or, at least that's the rumor. Two sources connected with government radio communications stated "off the record" that the government is concernned and going to proceed very cautiously with installation of new digital voice equipment because it is apparently not as secure as originally thought. It is a "rumor", but from two extremely reliable sources.

Jerry Callam (OH-015), President and Founder of The All Ohio Scanner Club (OH-141), send along a copy of a letter he received in reply to his inquiry directed to official sources at Wright-Patterson Air Force Base. Jerry sent them a list of "over 60 frequencies to verify, and you see what he wrote." As for those frequencies not mentioned in the reply, "The remainder of the frequencies listed in your letter are not presently authorized or in use at Wright-Patterson AFB. We have no way of determining source or usage of these frequencies. But, at least this Air Force Major took the time to respond to a direct and courteous written request for information. All frequencies are in mHz.

121.8	Air Traffic Control
126.7	Air Traffic Control
236.6	Air Traffic Control
289.4	Air Traffic Control
289.6	Air Traffic Control
335.8	Air Traffic Control
149.3	Medical Center Paging System
164.7	Base Maint. Chnl. "C" Net
407.5	Central Base Pager System
413.375	Air Force Museum Net

Steve Jester (KS-011) sends along two corrections for the McConnell Air Force Base frequency listings published on page 19 the the April, '83, issue:
Ch. Q should read 142.050 in, 142.575 out
Ch. R should read 142.575 in, 142.050 our

In the same issue, on page 20, is a list of Army National Guard frequencies -- those were compiled by Bob Trivalos (WI-026). Bob is the biggest UHF Aircraft listener and researcher I know. He has sent along an extensive list of material dealing with air-to-air refueling. Here is a map of Refueling Tracks and Anchors and contact notes.


REFUELING TRACKS/ANCHORS
Tracks 210 and 211 Canada
Areas 719 thru 727 Alaska Track 505, 506 Alaska
Tracks 324, 326 and 332 Puerto Rico Tracks 331 Bermuda
LEGEND
Refueling Track
ARIP/Exit Point
Refueling Area

**NOTES Aircraft to contact:

631	"Footrope" Pri-301.6/Sec-314.2 "Sleekness" Pri-340.8/Sec-259.4 "Roadstead" Pri-259.4/Sec-267.8
632	"Incognito" Pri-364.2/Sec-as directed (NORAD)
633A	"Crisco" Pri-271.1/Sec-322.7
633B	"Crisco" Pri-271.1/Sec-322.7
634	"Arizona Pete" Pri-254.2/Sec-270.2 (26th NORAD Region)

Federal Government/Military continued

636	"King Cole" Pri-292.3 & 363.9/Sec-321.2 "Fertile" Pri-as assigned during pre-coordination Sec-364.2 (NORAD) "Giant Killer" Pri-233.7 & 127.65	
640A	"Brochure Control" Pri-311.3/Sec-322.7	(128th TCF)
640B	"Brochure Control" Pri-311.3/Sec-322.7	(128th TCF)
641	"Nellis Control" Pri-343.0 (ATC) "Baron Control" Pri-379.4 (GCI) "Dragnet" Pri-379.4 (AWACS)	
642E	"Clover" Pri-339.0/Sec-118.45	
643	"Cornfed" Pri-364.1/Sec-395.1	
647	"O'Grady" Pri-358.2/Sec-264.7	
716	"Barrie" Pri-325.8 "Alley Cat" Pri-364.1	
717A	"Robert Alfa" Pri-271.0 (25th NORAD Region) Pri-253.4/Sec-337.4 (105th TAC)	
717B	"Robert Alfa" Pri-271.0 (25th NORAD Region) Pri-253.4/Sec-337.4 (105th TAC)	
719	"Fort Yukon" Pri-364.2/Sec-269.9	(NORAD)
720NE	"Murphy Dome" Pri-364.2/Sec-269.9	(NORAD)
721NE	"Sparrevohn" Pri-364.2/Sec-269.9	(NORAD)
722NE	"Cold Bay" Pri-364.2/Sec-269.9	(NORAD)
723	"Tatalina" Pri-364.2/Sec-269.9	(NORAD)
725NW	"Indian Mountain" Pri-364.2/Sec-269.9	(NORAD)
726	"Kotzebue" Pri-364.2/Sec-269.9	(NORAD)
727NW	"Tatalina" Pri-364.2/Sec-269.9 "Campion" Pri-364.2/Sec-269.9	(NORAD) (NORAD)

Lastly a clipping from Hugh Vandegrift (TX-124) describing the Army's new VINSON communication-security equipment.

ALL SECURE — Sgt. Louis Koren, Co C, 54th Sig Bn, 3rd Sig Bde, practices net control procedures during a class on the latest communication-security equipment, VINSON, TSEC, KY-57.

(Photo by John Easler)

Hood receives VINSON

Soldiers from 3rd Sig Bde were recently involved with the train-the-trainers concept for the new VINSON communication-security equipment. VINSON, already fielded in Europe, is the Armed Forces state-of-the-art secure equipment, and is being phased in at Fort Hood.

SFC Charles Dean and SFC George Guillott, from Fort Huachuca, Ariz., spent the last two weeks training Fort Hood personnel to be instructors on the VINSON equipment. Over the next month, units throughout the post will be doing their own VINSON training.

The course consisted of two blocks: installation of the system and instruction on the net control device. Installation practice covered tracked and wheeled-vehicles. "There are as many different types of installations as there are radios," CWO 4 Nicholas Cormier, crypto technician, 3rd Sig Bde, said.

The second block, on the net control device, helped to train the operator to take care of the cryptographic security of all subscribers in his net. Dean said, "Most people don't realize the importance of the crypto net controller. They will make or break the security of the communications, which can result in the success or failure of the overall mission."

The purpose of VINSON is to decypher tactical voice transmissions. It's replacing the current NESTOR system and is more reliable, durable, has lower power requirements and better voice quality.

This system operates more efficiently and more securely than any other presently used system, according to Cormier. "Although the system is more secure, CEOI's (Communications Electronic Operators Instructions), authentication, and correct radio procedures are still required," he said.

Sgt. Louis Koren said, "The VINSON equipment isn't that difficult to install once you are familiarized with it. But the role of the net controller can be very complex. I feel lucky to be among the few to have taken the course."

Koren is an instructor for the 54th Sig Bn, 3rd Sig Bde, multichannel equipment operator refresher school. He will be teaching about VINSON in the near future.

FCC TOPICS

George DuBois, Editor

FCC news and information of interest relating to two-way communications. Send comments and questions to:
George DuBois, 10048 NE Campaign, Portland, OR 97220

The Commission has at last released a Notice of Proposed Rulemaking looking toward the creation of a nationwide air-to-ground passenger telephone service at 900 mHz. This is in response to two petitions, one by Airfone, Inc. in 1979 and the other by Aeronautical Radio, Inc. (ARINC) in 1981. The Airfone petition asks for the allocation of 4 mHz, 2 mHz for ground stations and 2 mHz for airborne stations. The 2 mHz bands would be divided into ten 200 kHz sub-bands geographically spaced approximately 600 miles apart throughout the country. Each 200 kHz band would be divided into thirty-one 6 kHz-wide channels, using amplitude compandored sideband (ACSB) emission. The maximum number of calls that could be handled on heavily traveled routes would be 1700 per hour. Airfone's system would not be able to receive calls placed from the ground, which they maintain would be too disruptive anyway. There would also be no "hand-off" to the next station during a flight. The minimum likely duration of a call is anticipated to be 6 minutes, the maximum possible about 40 minutes. They are proposing to charge a flat $7.50 for the first three minutes and a buck and a quarter for each additional minute.

The ARINC system requires 12 mHz of spectrum, 6 in each direction. Each 6 mHz would be divided into four sets of 150 channels with 10 kHz spacing, the minimum spacing that ARINC maintains is needed to provide a voice-grade circuit while accounting to Doppler shift in flight. With more channels, the ARINC system would provide hand-off of a call to the next station along a route, and would also be able to receive incoming calls from the ground.

Although not indicating a preference for either system, the Commission indicates that in it's need to conserve spectrum it is preferable to consider the allocation of only 4 mHz for such a service. The bands being proposed are 896 to 898 and 941 to 943 mHz, both in bands being held in reserve for future land mobile use. They are not proposing technical standards at this time, since both systems are presently

in the experimental stage. Also to be considered is the entry or other, competing companies into the system.

The FCC has terminated it's Notice of Inquiry (released in 1979) that sought comment on the creation of a new Personal Radio service and released a new Notice of Proposed Rulemaking in the matter. Citing the demand by the public for a new personal radio service that is not presently being met (certainly not by the CB Radio Service), the Commission is proposing the creation of a new Private Radio Communications Service (PRCS) in the 898 to 902 and 937 to 941 mHz bands. It would be as "self-regulating" as possible. There would be no individual licenses required, except that repeaters would require licensing. Repeaters could be licensed to individuals or companies, a group of users on a shared basis, or to a commercial vendor. Automatic station identification would be required, probably a code sequence programmed by the radio manufacturer. During continuous conversations, a PRCS receiver would sample the available channels and disable a transmitter after a certain time limit if 70% of the available channels were in use. Interconnection (auto-patch) would be allowed, but only through the users base station. Interconnection could not be provided at the repeater.

The service would operate in a sort of "decentralized trunking" scheme. Five channels would be for control purposes. If a unit could not make contact in the simplex mode, it would automatically switch to one of the 30 Local (simplex) channels or to one of the 97 repeater channels, in the event a contact is completed. Another two simplex channels (from one channel pair) would be for "party-line" use, undirected communications to service stations, motels, or what-have-you. Maximum power allowed for mobiles would be 10 watts and all transmitter must be type-accepted (incorporating the above provisions) to be used. This would lead to a "user-transparant" system, where no special knowledge is required for operation and violations of the Rules would be virtually impossible, since channel selection, duration and identification would be all automatic. The Rules would be contained in a new Part 96.

And, the Commission has modified its proposal to allocate frequencies for Fixed service by both Government and non-government users at 900 mHz. Originally proposed as using the 899-902 and 938-941 mHz bands (see Sept. 82 column), they are now changing the Notice to specify the 932 to 935 mHz band, paired with 943 to 946 mHz. They had changed one of the bands requested once already, when they found out that Canada is considering a new General Radio Service (CB) in the 932-935.5 mHz band. Now, with all the reshuffling necessary to accomodate the new services proposed in this column, it is felt that these are about the only bands left, even though they are relatively close-spaced. NTIA wants spectrum to accomodate low-density fixed links presently in the 162-174 and 406-420 mHz bands, such as those used by the Corps of Engineers, the FB-one and others.

International

This column is for reporting two-way communications frequencies above 30 MHz, radio system details, monitoring experiences, and any other information relating to monitoring in countries other than the United States and Canada. Send to: Rickey Stein, 456 Barrymore Place, North Brunswick, NJ 08902.

Although he's new to RCMA, Geoff Halligey (ENGL-005) is no novice when it comes to the field of radio. He has considerable practical working knowledge and has been kind enough to share a bit of that experience with us. In the following article, he has given us insight into the early days of Scotland Yard police radio.

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SCOTLAND YARD ON THE AIR

Jane Boutwell's article on Scotland Yard (Oscar) communications was both witty and perceptive (Jan. 1982 RCMA Newsletter).

But how did it all start?

It was way back in the early 1930's that I mastered the Morse code with a view to a sea-going career, so I was always searching around for Morse transmissions to practice on. I found that if our home receiver was tuned low enough - to around 2000 kHz (but we called it 150 metres then) - Scotland Yard could be picked up easily.

The Yard - with the call G2MP (MP = Metropolitan Police) - had at about this time introduced two-way communications with their patrol cars in the streets of London. They used, not telephony, but CW; each car therefore included a uniformed radio operator.

A simple X-code was employed - 'X21 Oxford St' might mean 'I am proceeding along Oxford St.' (The British police always 'proceed' from A to B, they never walk or run or drive). The X-code was easy to break after a few messages had been noted down, but its use was more to hasten communications rather than for secrecy since not one criminal in ten thousand could read Morse!

When I went to sea I lost touch with such matters, except for one brief period when I was the radio op. on a trawler out of Hull, England, fishing in the Davis Strait. There at night I could sometimes faintly hear U.S. police cars, using voice on the trawler frequencies around 1700 to 2000 kHz.

Passing on a few years, the FM band 88 to 108 came into being. In the UK, this band was divided into three; the BBC were allocated 88 to 97, the police and fire services 97 to 102 and the remainder of the band, 102 to 108, is still unused.

On the continent of Europe, the whole of the FM band is used for broadcasting. Thus in summer, when a nice big 'high' is settled over Europe, our police and fire services are frequently entertained by musical interludes, which sometimes seriously interfere with communications. French (Caen and Lille) and Belgian broadcasters are mainly responsible, although they are operating quite legitimately.

Anybody in the London area with an FM transistor radio can pick up on the same calls that Miss Boutwell describes ('Oscar' is but one of the police channels). With their occupation of part of an international broadcasting spectrum, the police can hardly complain if people listen to them; nevertheless, the British tend to ignore these transmissions although many may be aware of their existence. Some, perhaps, feel guilty as if they were overhearing private conversations, or maybe they just find more comfort listening to auntie BBC.

Criminals have no such inhibitions, however, and make use of the vacant FM frequencies from time to time. One such was the notorious Soviet spy Blake, who was allowed the use of an FM receiver in his prison cell. Over this radio he received his instructions; he was sprung (as we say) from his London gaol and was away on a plane to East Germany almost before his absence was noticed.

In another instance, a listener in central London overheard what was clearly a lookout on the roof of a bank one Sunday morning, radioing to his accomplices chipping their way into the bank's cellar strong room from a vacant shop next door. The listener's only clue to the bank's whereabouts was the sound of nearby pneumatic road drills. He taped what he heard and rushed his tape to the nearest police station. Although there is very little work done on London's streets on a Sunday, the police failed to discover the break-in location and the thieves got clean away with a good haul from the safe deposit boxes.

The bank was, in fact, just around the corner from Baker Street. Sherlock Holmes would have had Dr. Watson around there in no time at all!

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Many thanks to Geoff for a most interesting article. I hope we see more of the same from him in the near future. Until next month....להתראות

LOW BAND

Send reports of distant stations received on the 30-50 MHz Band, as well as: information; comments; suggestions; question; and any items of interest regarding Low Band Dxing to:

Mike Britt, 14631 Yorba Street, Tustin, CA 92680

Greetings!

Here it is the June issue of the RCMA newsletter, and I still have so much to cover from all that you have sent in about this winter's skip. Well, I will continue to wade through it all at a steady pace.

THE SKIP ISN"T DEAD YET

Surprizingly, March saw a bit of an upswing in the skip activity, with Latin America present up to 40 MHz on several days here in North America. Traditionally, March has been the "out with a bang" month for the winter skip cycle. In the past few years I've picked up all my strangest receptions above 46 MHz in the month of March. The forecasts were so pessimistic, however, that I hadn't even expected the level of activity that did occur. The scientists now say that the current 11-year sunspot cycle turned out to be about a 12-year cycle instead, which accounts for the good activity we all heard in the last part of 1982. Unfortunately, this may mean a rapid decline in the solar skip activity from this point on for several years. A look at the news clipping at the end of this article will explain this a little more.

Dave Meisel sends the bad news that he is throwing in the towel on his "Mail-A-Prop" service. It seems there were just too many problems to make the continuation of DX forecasts feasible. For one thing, the Sun was not cooperating with the mean values used to make the short term forecasts and Dx charts. The other problem was the fact that much of the same information is printed in such publications as CQ Magazine, and thus available to the public for "free", so to speak. I did find the Mail-A-Prop forecasts a very helpful guide, and preferred the daily breakdown over George Jacobs' Column in CQ (oriented to Hams). Some good things don't last forever, though.

"The department had better send these new handi-talkies back to Motorola – every time we're up in the platform, all the transmissions come through in Spanish!!"

SKIP, SATELLITE, OR MOTOROLA?

AND MORE SPANISH PAGING FROM GUESS WHERE...

The question had been posed a few months ago about Spanish heard on 39.64. Some members on the east coast of the U.S. had reported hearing what seemed to be a paging service on this freq. I, myself had heard Spanish, but it was conversational, not paging.

On 3/26/83, I was able to easily solve this mystery when a jumble of Spanish occupied 39.64. What to my ears' surprize, but the familiar sound of Spanish paging from Argentina. The speaker had that familiar Argentine accent, and the format of the paging messages was virtually identical to that found on 32 and 35 MHz. Why I had never heard this one before I cannot say.

Perhaps an even greater surprize occurred the following day, 3/27/83, when, as I was listening to more of the Argentina skip, another Spanish speaker suddenly drowned it out. (Understand all of this was in between transmissions of the Los Angeles Co. Sheriff, which also uses the freq.).

As it turns out, the other useage of 39.64 is a point-to-point operation in Cuba.

So those who have heard Spanish skip on 39.64 have no doubt heard one of these two operations.

Another Argentina paging station heard this winter is on 43.74 (or 43.735, I couldn't decide which was the strongest due to heavy interference from adjacent channels). It has the charactoristic accented female, with each transmission preceeded by a tone. It is not as strong as the others are.

CUBAN STATIONS IDed

Here are a few more stations which have been successfully IDed. These are all from Cuba, and all transmissions were in Spanish, of course. There are certainly many more cuban stations on the Low Band (some listed last month), but these were among those most active in the past few months:

40.06; 42.125(R); 42.60; 43.435(R); 43.41; 43.94; 44.00; 44.50; 44.90; 45.10; 46.28

ON THE MEXICAN OIL FRONT...

It turns out that 44.325 heard by George (OR-001) was not a mining operation, but instead, another oil operation. Last month I mentioned that the location of the operation had been traced to Poza Rica, Mexico. Closer scrutiny of the transmissions showed that the refrences to digging and excavation were for the laying of an oil pipeline. Several stations were also heard discussing the functioning lines as well. Another base heard was "San Martin", located about 100 miles N.W. of Poza Rica. It also turns out that traffic heard on 44.275 is from the same operation, as "Poza Rica" is also heard on that one.

Three frequencies which I was following in March were 38.30, 38.50, and 38.60, which are all the same oil operation, located somewhere southwest of Mexico City. The base is "Control Talara", and several pumping stations are heard reporting on the pressure and flow of the oil through "la línea", and the operation of various "bombas" (pumps) and "metros" (meters).

And here's a strange one it's not an oil operation, and I doubt a Mexican origin with the accent heard, but it certainly is interesting: 39.86 has several Spanish speakers, and these stations have IDs such as:

"Laborador cuatro doce" (Worker 4-12); "America cuarenta y seis" (America 46); "Texas cuarenta y nueve" (Texas(?)49)

Now, why the heck they have names like "America" and "Texas", is beyond me. They read off a series of numbers, and there is also reference to various colors. Once "Guatamala" was mentioned, and this might be a clue to the origin, but then again, America and Texas are mentioned, so it might not mean a thing. It may relate to an inventory in shipping or manufacturing. Has anyone else heard this?

CLOSING IN ON THOSE 33.X75 REPEATERS

I left a few of you hanging on a cliff last month, I realize. I'm not sure I have all that much to show for it, for, although I thought I finally got some place-names out of the transmissions, I still can't come up with a specific location. It is now established that the three "mystery repeaters" (33.475, 33.675, and 33.875) are definitely located in Central America (NOT South America, as I had first believed), south of Guatamala and north of Colombia (that is, Panama is a possibility). For me to tell you the country I think they are located in would be speculating a bit to far, but let's just say there may be some leftist rebels (or military dictators) who have been listening to all the U.S. police transmissions from on 39.48 and 39.68, thanks to the operation of these repeaters.

33.475 proved quite interesting in February and March, as Nassau County, New York was heard being repeated quite clearly on 33.475 on atleast ten different days. The transmissions from New York were a bit distorted (bleed from 39.48 over to 39.475, the repeater input), but clear enough at times that even that distinctive tone burst used by the Nassua Co. units could be recognized. I can imagine what they thought in Central America (¿donde esta 'Merrick'? ¿Que es 'Masapequewa Diner' y 'signal 10'?). A fair amount of Spanish was also heard, of the same accent and traits heard on 33.675 & .875. The 33.475 repeater has a one second delay, heard as a carrier at the end of a repeated transmission before the termination of the transmission.

A great deal of Spanish was heard on 33.675, and, in one perticular series of transmissions, seven different speaker/stations were heard. One can see why the transmitters might be so powerful, if there are quite a few stations spread over a wide area. The conversations are all business oriented, with much discussion of shipments and deliveries. 33.675 was also heard repeating the PD skip, with things like:

"Baddack"; "Bay City"(Mich.?); "Nevada license plate"; "'777, clear", "'198, clear"

The last two may be partial call signs. Also a call sign, similar to "KBG538", which I haven't located as yet. Like 33.475, 33.675 also has a one second delay on the repeater, heard as a series of six clicking noises at the end of a transmission.

I was surprized to hear BIWI English on 33.875 one recent afternoon, and at first thought it was from the 33.875, until a phone call to Chuck (IL-141) (my silent partner and collector of BIWI/Jamaican freq.s), who assurred me that I was not "going bananas", but only hearing the input to a Jamaican repeater (33.875 input, 36.875 output). Good greif, how many folks use these frequencies?

As for the 33.X75's location of origin, I thought I had something with these

possible place-names, but a check of several Central/South American atlases provided only frustration. Anybody out there recognize anything?: "La Basa Helugande"; "Cancula"; "Le Mondriano"; "El Pacificado"; "Basa Simplio"; "San Dias";"Santa La Jolla"

Now, that's incredible!

Chuck (IL-141) has sent several cassette tapes over the past few months, the contents which have been nothing short of "incredible" receptions. While George (OR-001) and myself have gotten transmissions from the Orient during this last winter's skip, Chuck has lassoed in a menagerie of skip from several continents. As a matter of fact, at the present time, I am still uncertain as to what some of the languages are.

Virtually every week during November and December, the European skip made its way to Chuck's location in Illinois. Not to mention the tremendous amount of BIWI skip Chuck has had from the Gulf and Caribbean - it seems Jamaican signals were just hovering around Chuck's antennas, waiting fo him to turn on the scanner each morning. The amount of Jamacian skip Chuck has IDed is so great I've decided to devote an entire column to the study of the Low Band on that Island.

Getting back to earth; in the first part of November, Chuck began getting German on several frequencies in the 34 to 35 MHz area (as mentioned previously in this col.). 34.76, 34.84, 34.86, 34.88, 34.90 have all been confirmed to be German from Germany. Chuck also reported receiving German on 34.80, 34.82, and 34.92. Along with the German came some French which was obviously not French Canadian, but from France itself. Chuck got this on the freq.s of 36.03, 36.05, 36.07, and 36.15. Something I noted about all of the taped transmissions was the fact that a strange tone burst was present at the start of many of the transmissions. I believe that this was actually some sort of MODAT or similar, and that this is actually the type of tone burst heard with many European repeaters (sounding something like a noise made by R2D2, than what we might hear in the U.S.). As a matter of fact, it appears that all of the French and German received by Chuck was from repeater outputs.

Chuck again heard the German in in December and on 1/3/83. He last reported receiving the German on 34.76 on 2/28/83. In that transmission, a German "ten-count" was heard, and some work was apparently being done on the radios. In one of the transmissions recorded from 1/3/83, the speaker mentions a "Volvo", about the only word I could recognize from the 34.86 broadcast.

One of the most interesting transmissions Chuck taped was from was from 34.60. At first, I thought I had seen one too many Humphry Bogart movies, as I thought I was hearing the speaker mention "Casablanca" over and over in the conversation. The language turned out to be Arabic, and it seems my ears weren't lying to me after all. It seems Chuck was hearing a broadcast from Morocco, wherein lies the famous city.

Also in the first part of December, Chuck received that French TV audio from France. As it is an AM transmission, it was detectible on 41.23 to 41.27, but by far the strongest on 41.25, according to Chuck. He noted they were reviewing the movie "Annie".

Less clear cut were languages heard on the freq.s of 34.55, 34.78, and 40.13. I had thought Russian for at least 34.78, but that has now been ruled out. Dutch or something similar seems to be a possibility for 34.55, but I will hold judgement on these a little while longer.

From members' logs:

From Rod Sutter (AZ-047), Phoenix, Arizona:

33.80,33.82 B/M	Fire	(KGE633)	Dauphin Co., PA	13:00PST	10/14/82(ref. to SR-83, Union Deposit exit).
33.04 B/M	?	(Call?)	Unknown	14:34PST	11/1/82
33.94	Fire	(Call?)	Unknown	14:40PST	11/1/82 (Ref. to Kings Dept. Store)
33.70	Fire	(WYR629)	Westmoreland,PA	14:42PST	11/1/82 (Sutterville)
33.74	Fire	(Call?)	(Ohio?)	14:43PST	11/1/82 (Aberdeen Frwy)
33.90 (Rout)	Fire	"KQI316"	Hamilton Co.,Ohio	14:44PST	11/1/82 (1-Robert-20; Cornell Rd)
33.06	Rescue	(Call?)	Unknown	14:45PST	11/1/82 (Amb.4; "16:47")
33.86 B/M	Fire	"KGC676"	Washington Co.,MD	14:50PST	11/1/82 -1,953 miles Very active (North Hampton monitors,etc.)
33.98	Fire	(Call?)	Unknown	14:53PST	11/1/82
33.02	Veterinarian		Unknown	11:02PST	11/2/82
33.78	Fire	"KQF925"	Trumbell Co.,Oh.	11:09PST	11/2/82
33.08	School Buses		Uknown	14:48PST	11/1/82
33.70	Fire	"KBG804"	Oxford, Conn.	15:30PST	10/11/82

Low Band Skip continued

33.94 Fire "KXA312" Springhill,Fla. 15:30PST 10/11/82

33.78 Fire (Call?) Unknown? 12:04PST 11/2/82 (Central Time zone)
Union Grove Rd., E. of Union Grove Campground -any help??

Rod asks that if anyone has codes and frequencies for the skips he has received, he would appreciate them. Also, if anyone can help in IDing these or more skip, to write him: Rod Sutter (AZ-047) 2847 E. Blanche Dr., Phoenix, AZ 85032. (Editor's regrets on the delay in getting this in print. Maybe Rod can get a head start on the skip next winter. 33 MHz should be in by Sept.).

SUNDAY DEMOCRAT AND CHRONICLE
ROCHESTER, N.Y., FEBRUARY 27, 1983

Sunspot cycle ending

A record number found by scientists

By Patrick Young
Newhouse News Service

WASHINGTON — The current sunspot cycle, now apparently winding down, has proved the most active ever studied.

Scientists report a record number of sunspots and an unprecedented outpouring of energy from violent activity on the sun's surface.

"The total output of the sun was stronger than we've ever seen before, but in the last six weeks it has dropped precipitously" said Patrick McIntosh of the federal government's National Oceanic and Atmospheric Administration. McIntosh tracks sunspots at the agency's Space Environment Laboratory in Boulder, Colo.

"Activity in the last few days is the lowest since 1978. What we might be seeing now is some compensation for its overproduction earlier."

The number of sunspots — dark patches on the sun's surface where magnetic fields pop up from the interior — rises and falls in a cycle that averages 11 years.

Once a cycle reaches its maximum, the number of sunspots tends to remain high for about two years. The current cycle peaked late in 1979, but activity remained intense through 1982.

"We seem to have gotten three years instead of two," McIntosh said.

Ronald Gilliland of the National Center for Atmospheric Research, also in Boulder, calls the activity "interesting and puzzling, in the sense we don't understand what causes the the sunspot cycle in the first place."

Sunspot cycles have been charted for almost 300 years. Though they average 11 years, their duration has ranged from seven to 14 years.

"It's not surprising that this cycle is not 11 years," Gilliland said. "As to why, no one knows at this point.

"I don't think we should conclude the sun is changing into any different mode of behavior."

Sunspots are associated with solar flares, violent eruptions that spew charged particles into space.

When this solar debris reaches Earth, it causes "magnetic storms" in the upper atmosphere that produce the colorful northern and southern lights and can disrupt radio communications and even knock out electrical transformers.

Magnetic storms also are triggered by two less-violent types of solar activity: archlike eruptions called prominences; and high-speed bursts of solar wind, the sun's normal outpouring of particles.

Some people believe sunspot activity also affects Earth's weather, but that theory remains unproved.

Last year saw "certainly the most intense (solar) action of the last 10 years," McIntosh said.

And he said the sun could yet produce more bursts of intense activity. "It seems to be normal for the sun to save its biggest and baddest flares for late in a solar cycle."

John Katsufrakis of Stanford University said magnetic storms caused considerable interference in radio communications among the four U.S. bases in the Antarctic during 1982.

Katsufrakis is part of a team studying changes in Earth's upper atmosphere. The work involves sending radio signals along magnetic field lines that run between Siple Station in the Antarctic and a base in Canada. One display of southern lights over Siple last July turned the night sky blood red.

"The fellows who wintered over could stand outside and see their shadows," he said.

The magnetic storms played havoc with the team's experiment. "We lost 60 percent of the time we operated," Katsufrakis said. "We just couldn't compete with the stuff (interference) the sun was putting in. But we learned a lot about other things."

From: Tom Link(NJ126) Bearcat 300 unless noted

42.44 Police "KBN448" California Highway Patrol
3000 miles / base / 13:44EST 11/21/82 "KBN448"
Forest Home, Calif.

39.88 Sheriff "KOA722" Missoula County,Montana
2000 miles / base / 13:55EST 11/25/82 "KOA722"

39.82 Sheriff "KOA580" Toole County,Montana
2000 miles / base/ 14:39EST 11/25/82 "KOA530"

39.82 Sheriff "KOA565" Valley County,Montana
2000 miles / base / 15:07EST 11/25/82 "KOA565"

39.24 State Police "WXY244" South Dakota
1800 miles / base/ 15:18EST 11/25/82-Regency M400
"WXY244"

37.18 Police KKD569 Levelland,Texas 1900 miles
base 11:47EST 12/26/82 Regency M400
"Sundown Ambulance 29, Levelland P.D."

42.12 Police "KTN273" California Highway Patrol
3000 miles / base / 16:34EST 12/26/82 "KTN273"
Road Condition Report
(ED note: East Los Angeles C.H.P.)

Also, foreign skip was heard as follows:

39.78 Spanish 11:40EST 11/5/82 male speaking to female. Any help? (EDnote: probably, 39.775, a Venezuela telephone ch.)

39.62 Spanish 13:29EST 11/22/82 Mobil telephone ?
(ED note: probably 39.625, Venezuela Radio-telephone)

39.64 Spanisn 13:01EST 11/25/82 Page
See 1/83 Newsletter (Argentina!!)

39.85 Spanish 14:29 EST 11/25/82 male,female help
(Ed doesn't know)

39.66 Spanish 14:12EST 11/25/82 need help again
(Ed doesn't know)

Low Band Skip continued Hugh Stegman CA-LA-472
West Los Angeles
BC-250 with discone up 40'

33.82 B — Fire possible "KEH 863" "Susquehana" 1016 PDT 10/1/82

33.7 B — Fire "WSZ 317" Maryland, Caroline Co. 1100 PDT 10/1/82
ID: eastern time zone

31.35 B — Spanish - paging (ED note: Argentina tenativeID) 1109 PDT 10/1/82

34.18 B — Spanish paging signals - strong 1141 PDT 10/1/82
Repeated with tape loop
Sounds like the Argentine pager (ED note: unknown. Have others received this one?

33.7 B/M — Fire Westmoreland Emergency Mgmt, PA. 1343 PDT 10/3/82
"Westmoreland 911" "Chief 23" "WYR 629"
Note: This comes in strong every winter

33.7 B — Fire "KQE 686" Jefferson TWP, Ohio 1345 PDT 10/3/82
Note: Another regular skip signal

33.7 B/M — Fire "KDP 395" "K?C 375" "KDP 377" 1407 PDT 10/3/82
Catteragus County, NY FPD
Note: Still another regular

32.82 B — Spanish Several pages very strong sig 1415 PDT 10/3/82
Repeated on tape loop - medical
"call the base" "patient in danger"
Note: sounds like the Argentine pager (ED note: yes, Argentina).

35.28 B — Spanish paging (ED note: Argentina). 1500 PDT 10/3/82

33.82 B/M — Fire "KAB 823" New Orleans, LA 1558 PDT 10/4/82
"New Orleans Base" monitor test

33.82 B/M — Fire "KZN 425" Greenville N.C. 1600 PDT 10/4/82
"Greenville" weekly monitor test
followed by roll call of 11 stns.

33.7 B/M — Fire "WRX 643" Kenner, LA 1300 PDT 10/10/82
"Jefferson Parish"
Note: this is where the plane crash was,
and is another regular all winter

33.2 B/M — "Marine 2" "Base Station F" "666 F" 1114 PDT 10/29/82
Oil drilling, probably off Louisiana

33.82 B/M — Fire "KQM 648" Location unknown 1105 PST 10/31/82
"Stn. 1" "Stn. 3" "Unit 1300"
Eastern time zone (ED note: Bowers Fire Co., Inc., Bowers, Del.)
Note: full quieting - strong and steady

33.38 B — IP "KLC 327" Midwestern pipeline 1114 PST 10/31/82
Possibly Columbia Gas Transmission Co.
Note: full quieting (ED note: call sign shows VHFhi, Iowa. Actual call probably similar to given.

33.7 B — Fire "WXR 323" Harahan, LA 0839 PST 11/10/82
ID: "Harahan" (near Jeff. Parish)
Note: full quieting, stepping all over OCD

37.7 B/M — IW "WXX 847" "WXX 472" Power co. 0856 PST 11/10/82
"Evington Dispatch"
full quieting ED note: call signs show UHF Hawaii. Actual calls probably similar to those given.

39.5 B/M — Police "??? 446" "KRU 435" (interference) 1055 11/10/82
Probably Morgantown, Ky. ID: Butler Co., Ky.
ID's: "Rescue 1" "Hart County S.O."
"Morgantown" "Car 15" "Car 7"
full quieting

Low Band Skip continued

31.35 B — Not FCC all. Spanish paging — 1520 PST 11/12/82
Female voice, no repeats, strong
"Call central office", several others

32.82 B — Not FCC all. Spanish paging — 1529 PST 11/12/82
Male voice - tape repeats
"Call home", several others (ED note: Argentina)

32.96 B — Not FCC all. Spanish paging — 1537 PST 11/12/82
Same voice as above, but not an image
Tape repeats (ED note: Argentina-same sta, separate freq.)

31.35 B — Not FCC all. Spanish paging — 1603 PST 11/12/82
Female voice, no repeats

31.995 ?? — Not FCC all. Spanish — Purpose and — 1610 PST 11/12/82
location unknown
Male and female announcers' voices,
with high audio tone (tone protected link?)
very weak
continuous, like a broadcast
(ED note: This may have been an HF Broadcast image)

SHUTTLE SCANNING?

Has anyone suggested that a scanner should be taken up in the space shuttle? Think of all the things you could hear up there. After all, the signals we hear as skips were those which were headed out to space, but were instead deflected back to earth by ionized particles in the Earth's atmosphere. So it seems logical that all those signals that don't skip back would be game for reception while orbiting around our globe. So when is Beatty Bearcat going to phone me up and offer to pay for such an adventure? It would be great for product marketing (just like all that horrid dr d food that people went for in the late sixties - because that's what they ate on the moon!). That is, unless Electra has something else up their sleve - like maybe "the official scanner of the Olympics" (it seems like everyone gets into that act, although I haven't seen any companies rushing to be the "official garbage bag of the Olympics" or, better yet, the "official toilet bowl cleaner of the Olympics"!).

Next month will be devoted to a study of Jamaica and the British West Indes, as well as all those San Tome repeaters, as heard through the scanners of Chuck(IL141).

73, Mike

Marketplace

Gary M. Darcy, Editor

Members may advertise, free of charge, items wanted, items for sale, and items for trade that are associated with the hobby of monitor/utility radio listening. No dealer ads will be accepted for this column. RCMA assumes no responsibility for the outcome of any transactions between members resulting from ads printed in this column. Send to:
RCMA MARKETPLACE, c/o Gary M. Darcy, P.O. Box 1329, Palmdale, CA 93550.

Please be sure to include your membership number.

All Marketplace ads will be accepted ONLY on special forms available from this column's editor. Send a self-addressed STAMPED envelope (business size) to the address above to receive a supply of forms. Foreign members do not need to include postage on envelopes they send.

FOR SALE OR TRADE: Bearcat 200. 16 channel programmable. Purchased new in January. $200.00. Will trade plus $ for Bearcat 100 handheld. Contact: JAMES BROADBENT (MA-024), 78 Squanto Rd., North Weymouth, MA 02191 or phone 617-337-5831. (3-2-83)

FOR SALE: Bearcat BC-100. $250.00 U.S. Will ship UPS anywhere - your cost. Contact: BRIAN O'BRIEN (078-CANA), P.O. Box 75 Sterling Heights, MI 48077 or in Canada at P.O. Box 1052, Windsor, Ontario, N9A 6P4. (2-21-83)

WANTED: Bearcat (10.8 mhz IF) crystals for the following frequencies: 154.280 - 154.070 - 154.415 - 154.250 - 154.965 - 153.755 - 453.300 - 155.190 - 453.600 - 453.700 - 453.800 - 155.250 - 155.685 - 155.925 - 155.535 - 155.085 - 154.115. Let me know what you have and your price. Contact: RON MURRAY (CA-VE-013), 2930 - 17th S.E., Auburn, WA 98002 or phone 206-833-1813. No collect calls, please. (2-14-83)

FOR SALE: Sony TR-8460. Air band (108-136 mhz) receiver. Battery portable or AC. Manual tuning with 4 preset "Cursor Type" controls for desired frequencies. $45.00. Contact: L. P. BENJAMIN (CA-SR-002), 3986 Mesa Circle #201, Lompoc, CA 93436 or phone 805-733-4269. (2-14-83)

FOR SALE: Antenna Specialists ASPC 601. 6 DB uni/3 DB omni gain professional 2-way radio base station antenna. 153-154 mhz. Used/excellent condition. 16 feet tall includes mast and hardware. Must buy in person - will not ship. $100.00. Contact: JOHN HART (PA-019), 3608 Genesee Dr., Philadelphia, PA 19154. (2-10-83)

FOR SALE: M-TRON crystals for Regency UHF scanner. MRU-9. SASE for list of frequencies; 415.225 thru 419.650. 25 crystals for $30.00. Contact: PHIL JOHNSTON (CA-BU-002), 956 Lupin Ave., Chico, CA 95926 or phone 916-891-5596. (2-16-83)

FOR SALE: Scala UHF Yagi antennas (2). 5 element commercial Yagi antennas resonant 413 mhz. Excellent for 406-420 mhz. $60.00/pair. Contact: PHIL JOHNSTON (CA-BU-002), 956 Lupin Ave., Chico, CA 95926 or phone 916-891-5596. (2-16-83)

FOR SALE: Bearcat BC-100 accessories. Antenna, carry case, AC adaptor, battery charger, owners manual. Cheap/make offer. Contact: GERRY KERNS (CA-OR-193), 1250 South Sycamore, Santa Ana, CA 92707-1293 or phone 714-834-1805 between 0800-2100 PT. (2-15-83)

WANTED: I.R.A.C. microfiche set. Want to buy last year sold to the public or have someone have their set duplicated for me. Contact: BRUCE GUSTAFSON (IL-147), 10294 Atwood Rd., Roscoe, IL 61073. (2-15-83)

FOR SALE: Kenwood R-1000 Shortwave Receiver. 6 months old; excellent condition; must sell; 200 khz-30 mhz; AM-SSB-CW; clock. $375.00 or best offer. Will ship UPS. Contact: ERNIE SULSKI (IN-032), 648 Kathleen Dr., Schererville, IN 46375 or phone 219-322-1063. (2-27-83)

MONITORING & THE LAW

Eric P. Gaskell, Editor

Send all articles, references, copies of monitoring laws and questions pertaining to the legal aspects of monitor radio listening to:
Eric P. Gaskell, 1925 16th Ave., Apt. 210, Vero Beach, FL 32960.

Greetings and welcome once again to Monitoring and Law for the month of June, 1983. This month we have an update on the laws for the state of New Jersey under state statute 2A:127-4.

This information was sent by R. Prail (NJ-006). Our thanks to him.

Any person who installs or has in any motor vehicle a short-wave receiver operative on frequencies assigned by the Federal Communications Commission for fire, police, municipal or other government use, is guilty of a misdemeanor, unless a permit therefore has first been obtained from the chief of the county police, or from the chief of police of the city in which the person resides.

This section does not apply to any fire, police, or other government officials of the State, County, Municipality thereof.

The term of 'fire official' as used in this act shall include all active members and officers of any municipality fire department force or first aid and emergency or volunteer ambulance or rescue squad whether said department, force or squal be paid, part-paid, or volunteer.
(Source: State of New Jersey Police Manual)

Well, that's all for this month--see you in the July issue.

photo department

Send photographs of custom monitor listening posts, unusual or extensive monitor or two-way antenna systems, user station consoles (PD, Fire, Paramedics, etc.) or other monitor/two-way related equipment of interest. Photographs must be 3 x 5 inches or larger, black-and-white with good contrast, sharply focused and attractively composed. Each photo must be accompanied by details and explanations of equipment. Photos will not be returned. If you have questions, write first and please include an SASE. Send photos or write to:

Hugh Stegman, 11622 Exposition Blvd., #2, Los Angeles, CA 90064

Greetings from your friendly Photo Department!

Ever have a huge, ominous-looking antenna system appear within shouting distance of your listening place and not have even the foggiest notion of what the darn thing is used for? This is what has happened to member Peter F. Hegen (NIRE-002) of Londonderry, Northern Ireland (when we say RCMA is international, we mean it).

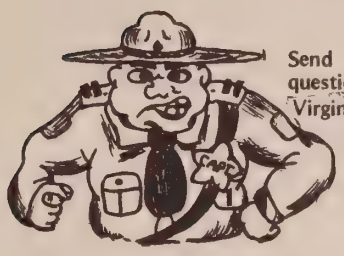
The two towers shown in Peter's pictures are on a former U.S. Navy base now used by the Army (Peter did not say whose army). The site is about 200 feet above sea level. The yagis on the right look conventional, despite unusual polarization. The THING on the left looks like E.T. just autopatched home! Peter states that he is becoming quite frustrated, since he monitors everything from 1 to 800 MHz and still remains utterly mystified as to its origin or purpose.

While admiring this antenna as pure hi-tech sculpture, I am also in the dark as to its use. Its designers are obviously after an omnidirectional pattern over a very broad VHF and UHF range. Is it for listening or intelligence gathering? Any readers who can solve this mystery should let me know, and I'll run the answer in this column (provided it's publishable!).

Next month we'll get to see inside the impressive Caltrans operations center, used for the formidable task of keeping tabs on L.A and Orange County rush hour traffic. See you then...

Public Safety

This column is for reporting Public Safety and Special Emergency frequency information, radio system details, radio codes, dispatch areas, unit numbering systems, etc. for police; sheriff, fire, forestry (except USFS), fish and game, highway patrol, state police, prisons, prisoner work camps, local government, highway & street maintenance, port authority/bridge maintenance, animal control, ambulances, paramedics, hospitals, life guards, ski patrol, search & rescue, flood control, civil defense and disaster organizations. Input and questions for this column must be sent to the proper regional Public Safety editor listed below.



PUBLIC SAFETY — SOUTH EAST:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Florida, Georgia, N. Carolina, S. Carolina, W. Virginia, and Virginia:

William Mauldin, 2268 N.W. 30th Rd., Boca Raton, FL 33431

STATE OF NORTH CAROLINA - Wildlife Resources Commission Enforcement System

The following information was collected and provided by Paul, NC-021. Paul has devoted considerable time and effort to the radio systems of North Carolina. His last excellent contribution was on the NORTH CAROLINA STATE HIGHWAY PATROL and was published in the RCMA Newsletter, March 1981. My sincere thanks to Paul for this outstanding contribution! ** Paul asks that any member who has any data or corrections regarding this or other N.C. system, contact him at P.O. Box 243, Benson, N.C. 27504. Paul will be working closely with your Editor to give very good coverage to the state systems used in North Carolina. Please also send me copies of the data for the RCMA computer here, so we can keep the NC files updated!

The WILDLIFE RESOURCES COMMISSION enforces hunting, fishing and boating regulations in North Carolina. The Commission is also charged with wildlife & boating education as well as radiation control across the state. The WRC radio system is perhaps the best overall system in the state. Wildlife violations are called to the central Raleigh dispatch center via toll-free 1-800-662-7137. (The State Highway Patrol also has a state-wide toll free number for public reporting and assistance needs.) The WRC uses PIN (Police Information Network - computer terminals) and the NCIC (National Crime Information Center) to communicate state-wide and nationally with other enforcement agencies. WRC dispatching is handled by Raleigh where the WRC dispatcher can talk with any mobile unit anywhere in the state by remote base-repeater links. The Raleigh office can be linked to any of these sites by microwave and/or control frequencies. The system has the capability of interconnecting a mobile to the telephone system or other mobile units in other parts of the state. An example of this would be... mobile unit on Ch 9 Delco repeater thru microwave to Raleigh dispatch center interconnect to microwave to mobile unit on CH 3 on the Asheville repeater. Finally, in emergencies, the Raleigh dispatcher can broadcast a message to all units state-wide by activation of all repeaters at once.

WRC uses Motorola Micor 12 channel mobile units. Walkie talkie units are not widely used, however, they can be heard on aircraft enforcement assignments such as night-light deer hunting or general violation searches. The radios have a button marked "RAL". When this button is activated, the microwave system is turned on and the officer can communicate directly with the Raleigh Office.

WILDLIFE RESOURCES COMMISSION - System Breakdown - Mobile Radio configuration:

Channel	Receive	Transmit	CTCSS Tone Encoder	Type
1	159.315	151.460	Tone "A"	Repeater
2	159.345	151.385	"A"	Repeater
3	159.285	151.325	"A"	Repeater
4	159.315	151.460	Tone "B"	Repeater
5	159.345	151.385	"B"	Repeater
6	159.285	151.325	"B"	Repeater

7	159.315	151.460	Tone "C"	Repeater
8	159.345	151.385	"C"	Repeater
9	159.285	151.325	"C"	Repeater
10		151.460	No Tone	Simplex
11		151.385	No Tone	Simplex
12		151.325	No Tone	Simplex

When the "RAL" button is pressed, Tone "D" is transmitted. Mobiles can also talk to Raleigh dispatch on channels 10, 11, 12 if the mobile unit is within 30 or so miles of the Raleigh Dispatch Office site. In the Henderson, Kerr Lake, Lake Gaston areas, some radios are equipped with 151.295 simplex (KBT792). In coastal areas, 159.225/ 151.295 (WAN540) are setup in the same way as channel 1 - 12.

Paul comments that the only drawback to this system is, for example, Raleigh or a mobile unit uses a repeater to contact a mobile unit, and the unit happens to be using a simplex frequency. However, the two mobile units are close enough, the unit on the simplex frequency will copy the calling unit direct, on the repeater input frequency, and then be able to switch back to the proper channel to continue the communication. Some mobile WRC units are equipped with local police radios. As this article is written, the North Carolina Legislature is considering giving the WRC game officers the same arrest authority as State Troopers.

NORTH CAROLINA WILDLIFE RESOURSES COMMISSION REMOTE BASES AND REPEATERS:

Remember... ALL dispatchers are located in the Dispatch Control Center in Raleigh!

FREQUENCY	CHANNEL	MAP LOCATION	LOCATED NEAR	CALL LETTERS
159.315	1	B	Bald Mountain	KGR395
	1	C	Columbia	KCT239
	1	D	Cr. Mountain	KCT238
	1	G	Haw River	KKW236
	4	A	Asheville	KCT232
	4	F	McCain	KKW232
	7	E	Enfield	KCT245
	7	H	Spencer Mtn.	KCT242
159.345	2	B	Bald Mountain	KCT233
	2	J	Henderson	KCT244
	5	I	Ahoskie	KSQ262
	5	M	Winston Salem	KCT235
	8	K	New Bern	KCT236
	8	L	Uwharrie	KCT231
159.285	3	A	Asheville	KCT234
	6	O	Smithfield	KCT237
	9	N	Delco	KCT744

In checking the actual FCC data lists, there are control and fixed points mentioned along with some mobile relays, but many have not been actually placed in service.

OFFICIAL NORTH CAROLINA TEN SIGNALS:

The following is a copy of the official North Carolina Law Enforcement "10" signals. This card is from the NORTH CAROLINA STATE HIGHWAY PATROL, however, these are the exact signals used by most other law enforcement agencies and police departments also. The only major changes for the WRC officers are --- Signal 20 which means "residence" and Signal 56 which means "switch radio to channel 10, 11 or 12. Mobile radio simplex range is about 15 miles, depending upon location and conditions.

OFFICIAL TEN SIGNALS

10–1 Unable to copy – change location
10–2 Signals Good
10–3 Stop transmitting
10–4 Acknowledgement
10–5 Relay
10–6 Busy – Stand by unless urgent
10–7 Out of service (Give location and/or telephone number)
10–8 In service
10–9 Repeat
10–10 Fight in progress
10–12 Stand by (stop)
10–13 Weather and road report
10–17 Meet complainant
10–18 Complete assignment quickly
10–19 Return to _____
10–20 Location
10–21 Call _____ by telephone
10–22 Disregard
10–23 Arrived at scene
10–24 Assignment completed
10–25 Report in person to (meet) _____
10–26 Detaining subject, expedite
10–27 Drivers license information
10–28 Vehicle registration information
10–29 Check records for wanted
10–30 Illegal use of radio
10–33 EMERGENCY
10–34 Riot
10–36 Correct time
10–37 Investigate suspicious vehicle
10–38 Stopping suspicious vehicle (Give station complete description before stopping)
10–41 Beginning tour of duty
10–42 Ending tour of duty
10–43 Information
10–44 Request permission to leave patrol _____ for _____
10–45 Animal carcass in _____ lane at _____

Public Safety - South East continued

10-46 Assist motorist
10-47 Emergency road repairs needed
10-48 Traffic standard needs repairs
10-49 Traffic light out
10-50 Accident - F,PI,PD
10-51 Wrecker needed
10-52 Ambulance needed
10-53 Road blocked
10-54 Livestock on highway
10-55 Intoxicated driver
10-56 Intoxicated pedestrian
10-57 Hit and run - F,PI, PD
10-58 Direct traffic
10-59 Convoy or escort
10-62 Reply to message
10-63 Prepare to make written copy
10-64 Message for local delivery
10-65 Net message assignment
10-66 Message cancellation
10-67 Clear to read net message
10-68 Dispatch information
10-69 Message received
10-74 Negative
10-75 In contact with
10-76 En Route
10-77 ETA (Estimated Time of Arrival)
10-78 Need assistance
10-79 Notify coroner
10-80 Chase
10-81 Breath Analyzer Check
10-82 Reserve lodging
10-84 If meeting _____advise ETA
10-85 Will be late
10-86 Operator, or officer on duty
10-88 Advise present telephone number of _____
10-89 Bomb Threat
10-90 Bank alarm
10-91 Unnecessary use of radio
10-92 Check improperly parked vehicle
10-93 Blockade
10-94 Drag racing
10-95 Have prisoner in custody
10-96 Mental subject
10-97 Pickup prisoner
10-98 Prison or jail break
10-99 Records indicate wanted or stolen

Signal 1 Call the Colonel
Signal 2 Call your Captain
Signal 3 Call your Lieutenant
Signal 4 Call your Firest Sergeant
Signal 5 Call your Line Sergeant
Signal 6 Call _____ at _____
Signal 7 Meet _____ at _____
Signal 8 Your equipment is ready for service
Signal 9 Meet at _____troop or district meeting
Signal 10
Signal 11 All men affected by this signal should immediately prepare for emergency duty and maintain radio contact.
Signal 12 Report to _____at _____for emergency duty
Signal 13 Call Lt. Colonel
Signal 14 Call the Commissioner
Signal 15 Call the Assistant Commissioner
Signal 16 Call Major, Communication & Transportation Division
Signal 17 Call Major, Field Operations
Signal 18 Call Major, Training and Inspection
Signal 21 Request for radio or car repair
Signal 22 Accident report via radio
Signal 23 Message requiring special handling (answer requested)
Signal 24 Daily accident summary
Signal 25 _____needs immediate assistance to make arrest of resisting person. Report at once to _____
Signal 99 Inventory of Operational Readiness
Signal 26 Computer terminal temporarily out of service

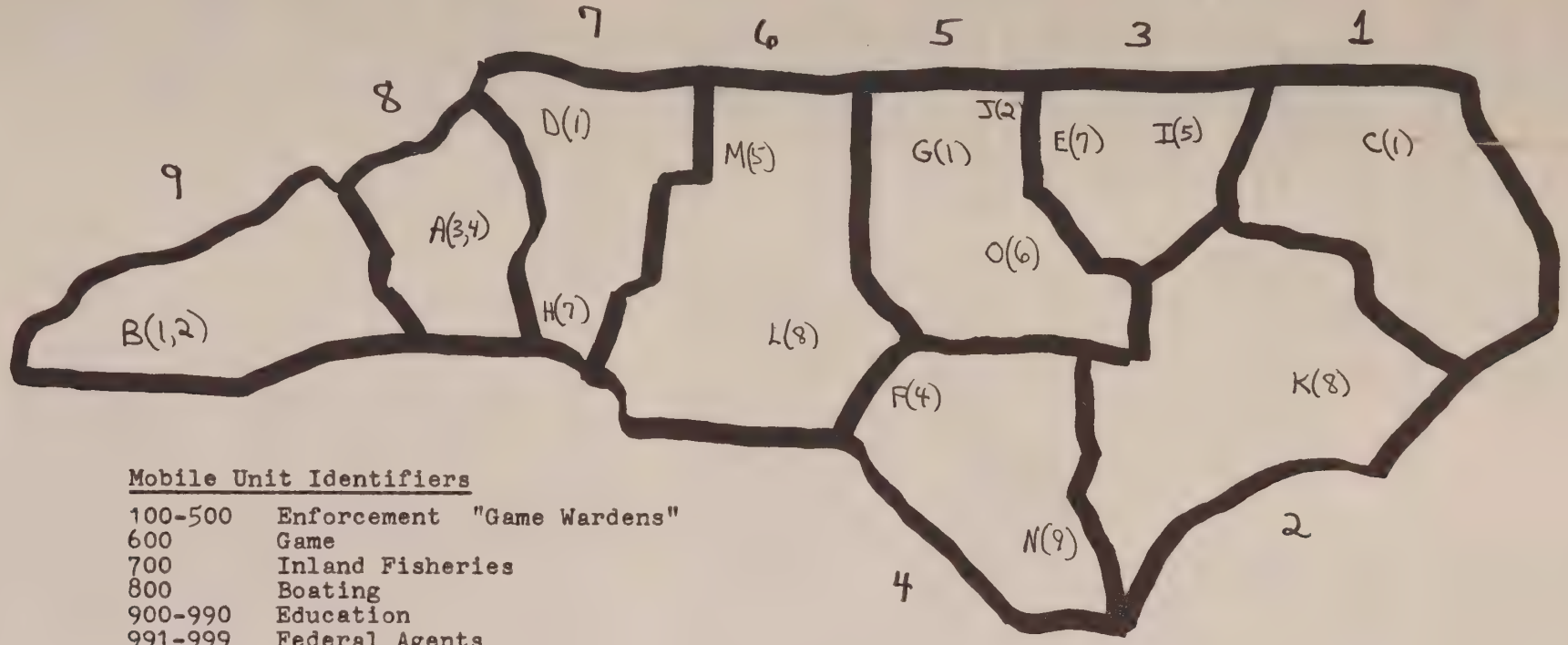
Map of N.C. Wildlife Commission District Repeater Locations is found on p. 36.

-Editor

MONITORING CHARLOTTE, NORTH CAROLINA and surrounding area: In keeping with our new format, this is another in the series of articles which will give you a listing of the most active and interesting frequencies in one of our major population areas. It does not cover all channels, of course, but it is meant to give resident and/or visitor a general guide for monitoring. Your comments or corrections will be appreciated! Many thanks to these N.C. members who made this article possible: Paul, NC-025; Chip, NC-045; Robert, NC-035; Dave, NC-041! It could not have been here without their excellent assistance! These direct and indirect Public Safety information frequencies should provide you with some very interesting listening!

453.300	Charlotte Police, F1	Adam 2, Adam 3 units	Repeater Output
453.500	Charlotte Police, F2	Baker 1, Baker 4 units	Repeater Output
453.700	Charlotte Police, F3	Car to car communication	Repeater Output
453.800	Charlotte Police, F4	Baker 2, Baker 3 units	Repeater Output
453.900	Charlotte Police, F5	Adam 1, Adam 4 units	Repeater Output
453.950	Charlotte Police, F6	DMV Records / Information	Repeater Output
460.525	Charlotte Fire, F1		Repeater Output
460.625	Charlotte Fire, F2		Repeater Output
460.550	Charlotte Fire, F3	Airport, "Blaze" ID	Repeater Output
460.460	Charlotte Fire, F4		Repeater Output
460.575	Charlotte Fire, F5		Repeater Output
462.950	MEDIC Dispatch	EMS & Ambulance Dispatch	Repeater Output
155.340	Rescue, County Medical (This is also state-wide Rescue Squad Mutual Aid)	Dispatch for Rescue	Base & Mobile
155.280	Rescue Dispatch	City & County Medical	Base & Mobile
453.450	Mecklenburg County Police Dispatch		Repeater Output
453.850	Mecklenburg County Police Dispatch		Repeater Output
33.940	County-wide Volunteer Fire Department Dispatch		Base & Mobile
453.750	Mecklenburg County Sheriff Dispatch		Repeater Output
453.125	Gaston County Police Dispatch		Repeater Output
42.620	North Carolina State Highway Patrol		Base to mobile
42.600	North Carolina State Highway Patrol		Base to mobile
42.520	North Carolina State Highway Patrol		Base to mobile
42.640	North Carolina State Highway Patrol		Base to mobile
42.500	North Carolina State Highway Patrol		Base to mobile
154.680	North Carolina State Highway Patrol		Base to Base

North Carolina Wildlife Commission District Map with Repeater Locations



Mobile Unit Identifiers

100-500	Enforcement "Game Wardens"
600	Game
700	Inland Fisheries
800	Boating
900-990	Education
991-999	Federal Agents

The last digit denotes the district the officer works in.
example: 454 is a game warden in district 4 (ch. 4,6, or 9)

Public Safety - South East continued

154.920	North Carolina State Highway Patrol	Base to Base
42.720	North Carolina State Bureau of Investigation	Base/Mob/Base
42.560	North Carolina Prison Department	Base/Mob/Base
42.820	State Highway Patrol simplex channel	Mobile to Mobile
33.940	Mecklenburg County VFD Dispatch	Base/Mob/Base
33.460	Gaston County VFD Dispatch	Base/Mob/Base
166.250	WBTV Television Live Eye Crews	
461.300	WSOC Television Live Eye Crews	
42.840	State Alcohol Beverage Control	Base/Mob/Base
163.485	U.S.A.F. Air Police at Douglas Airport	
148.150	Civil Air Patrol	Base/Mob/Acft
161.670	WAYS / WROQ Road & News Reports	
450.150	WBT Radio News Reports	
450.450	WSOC Radio Helicopter News	
450.312	WPCQ Television Live Eye Crews	
158.835	Park Rangers	
47.260	State Highway Dept. of Transportation	Base

CHARLOTTE POLICE Codes: See the listing under the WRC in this section. All of the North Carolina law enforcement agencies and departments use the same basic code with very few changes. This code listing should be good for all departments in NC.

CHARLOTTE FIRE Codes:

10-1 Signal weak
10-2 Signal good
10-3 Stop transmitting
10-4 Affirmative
10-5 Relay
10-6 Busy
10-7 Out of service
10-8 In service
10-9 Repeat
10-10 Negative
10-11 On duty
10-12 Standby
10-13 Existing conditions
10-14 Information
10-15 Message delivered
10-16 Reply to message
10-17 Enroute
10-18 Urgent
10-19 In contact
10-20 Location
10-21 Call by phone
10-22 Disregard
10-23 Arrived at scene
10-24 Assignment complete
10-25 Report to or meet
10-26 ETA
10-27 License/permit info
10-28 Ownership information
10-29 Records check
10-30 Danger/Cauton
10-31 Pickup
10-32 Units needed specify
10-33 Emergency
10-34 Time
10-40 Silent run
10-41 Beginning duty tour
10-42 Ending duty tour
10-43 Information
10-44 -Reserved-
10-45 Dispatch supply truck
10-46 Dispatch gas truck
10-47 Dispatch mechanic
10-49 Traffic light out
10-50 Accident
10-51 Dispatch wrecker
10-52 Dispatch ambulance fireman
10-53 Dispatch regular ambulance
10-54 Dispatch police
10-55 Dispatch PD report to OIC
10-56 Dispatch police, one car emergency
10-59 Convoy/Escort
10-60 Dispatch fire invest.
10-61 Dispatch police invest.
10-65 Dispatch Asst. Chief
10-70 Fire alarm
10-71 Report fire condition
10-72 Area survey
10-73 Smoke report
10-74 Returing to station in service
10-75 Returning to station out of service
10-76 Unlawful alarm
10-78 Dispatch assistance
10-79 Dispatch coroner
10-85 Recall for 2nd alarm
10-86 Recall for 3rd alarm
10-87 Bomb scare
10-96 Mental subject

CHARLOTTE MEDIC CODES:

(Same as Fire with these noted exceptions....)
10-10 Meal
10-14 Scheduled transport
10-15 Non-emergency traffic
10-16 Emergency traffic
10-17 Personal item
10-19 Return to (place)
10-26 Mechanical difficulty
10-27 Gas needed
10-28 Supplies needed
10-30 Improper used of radio
10-36 Time
10-40 Fight
10-44 False alarm
10-45 Non-transport
10-46 Transported by other
10-47 Transported
10-48 Gone on arrival
10-49 MCAS not needed
10-53 Block road at (place)
10-55 Drunk driver
10-56 Drunk pedestrian
10-57 Dispatch fire dept.
10-58 Notify supv.
10-60 Char. Community Hospital
10-61 Char. Memorial Hospital
10-62 Presbytarian Hospital
10-63 Mercy Hospital
10-64 Orthopedic Hospital
10-65 EENT Hospital
10-66 Huntersv. Hosp.
10-67 Lorance Hosp.
10-68 Req. physican
10-69 Req. helicopter
10-71 CLSC Base
10-73 Headquarters
10-74 Negative
10-75 Duty station
10-76 Enroute
10-77 ETA
10-79 Notify Medical Examiner
10-80 Morgue
10-81 Pt request
10-86 Prepare to copy
10-91 Domestic trouble
10-94 Man with gun
10-100 Nature break

CHARLOTTE POLICE Codes

Changes from standard:
10-26 ETA
10-30 Danger/caution
10-31 Pickup
10-32 Units needed
10-33 Help me quick
10-34 Time
10-40 Fight
10-43 Chase
10-44 Riot
10-45 Bomb threat
10-46 Bank alarm
10-72 Prisoner in custy.
10-73 Mental subject
10-74 Jail break
10-75 Stolen/wanted
10-76 Prowler
10-77 Assist FD
10-78 Permission to leave patrol
10-79 Injured person
10-80 Fire alarm
10-81 Nature of fire
10-82 Meet complainant
10-83 Missing person
10-84 Traffic cont. out
10-85 Damage to prop.
10-86 Larceny
10-87 Auto larceny
10-88 Susp. person
10-89 Reckless driving
10-90 Assault

CHARLOTTE POLICE Code
Changes from standard:
10-91 Domestic trouble
10-92 Assault with weapon
10-93 Disturbance
10-94 Man with gun
10-95 Rape
10-96 Assist motorist
10-97 Dog case
10-98 Emer road repairs
10-99 Serve warrant

My sincere thanks to those who submitted information this month! Next month, the article will be done by computer word processing! All of the information that you submit goes into the computer until we have enough to do a full article, and this new system will bring the Public Safety Southeast to a new dimension of efficiency. Next month, WEST VIRGINIA STATE POLICE, JACKSONVILLE, FL POLICE/SHERIFF, and if the computer gives us enough room, CHARLESTON, SC! Closing notes: Scott, FL-033, a new Broward County EMS Dispatch - 471.1125 MHz - very interesting listening for Ft. Lauderdale area! REMEMBER THESE RADIO SHOWS... Atlanta Hamvestion, June 18 & 19! Huntington, WVa Tri-State Hamfest June 5 (?); Manassas VA Hamfest June 5! This is your club! Keep sending in the notes, freqs and codes! 73s to all! Bill, WG4R.

PUBLIC SAFETY — NORTH EAST:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — New England states, New York, Pennsylvania, New Jersey, Maryland, Delaware and District of Columbia:

Richard Barnett, P.O. Box 428, Newton Highlands, MA 02161.

Greetings from your Northeast editors! You all know that besides myself we have Eric down in the Maryland-D.C. area and Tim Leber for the Delaware Valley. I know I repeat myself over and over again, but without your support this sub-editorship is doomed to failure. You can tell by the quality of this month's report by Eric that when people contribute there is no better means of communicating data than by having a sub-editor right in the region to sort through the information. That's quite a long-winded statement, I know, but I'm just so proud of the way this can work out (please everyone take a close look at the Maryland-D.C. pages) that I want this to work more than anything else. We hope that Tim and Eric will both have enough to contribute each month so that both their reports will appear in each newsletter, but as with this month, there are bound to be times when this is just not possible. Please bear with us until we smooth the workings out. Finally, I'm going to start looking into the possibility of having a New York Metro editor also. Please let me know your thoughts on the new system.

Boston Fire Codes (also used by other communities in Metro Boston Region)

Incident Type Code-Fire or Explosion Basic Code 1

110 Building, and Contents, or Building only
111 Building, Contents only
112 Building, Rubbish Inside
113 Bridge, Trestle, Overhead Elevated Structure
114 Building, Chimney or Flue
115 Building, Incinerator
116 Pier, Quay, Pilings
117 Tunnel
118 Utility Co. Equipment (Manhole, Transformer Vault)
119 Fire Detail

120 Public Mail Box
121 Fence, Pole
122 Other Outside Fire: Material has Definable Value

130 Road Transport Vehicle: Passenger
131 Road Transport Vehicle: Transport
132 Rail Transport Vehicle
133 Water Transport Vehicle

134 Air Transport Vehicle
135 Heavy Equipment
136 Special Vehicle

140 Forest, Brush, Grass, or Standing Crops

150 Rubbish, Trash, Waste
151 Dump
152 Dumpster
153 Compacter
154 Catch Basin

160 Explosion, No after Fire

170 Outside Spill, Leak with Ensuing Fire

190 Fire, Explosion not listed above

Incident Type Code-Overpressure (No Combustion) Basic Code 2

212 Steamline Rupture

220 Air Compressor Tank Rupture
221 Overpressure Rupture of Oxygen Tank
222 Overpressure Rupture of Other Gas Tank
223 Overpressure Rupture of Gas Pipe Line

290 Overpressure Rupture Not Listed Above

Incident Type Code-Rescue, E.M.S. Calls Basic Code 3

310 Inhalator
320 E.M.S. Call (Includes First Aid and Checking for Injuries)
321 Medical Assist
322 Vehicle Accident with Injuries (Includes Marine & Aircraft Accidents)
330 Lock-In (Not a Lock-Out, 510)
340 Search
341 Water Search

350 Extrication, Removal of Victim(s) (Includes Persons Released from Stalled Elevators, Extricated from Wreckage Etc.)

360 Drowning, Potential Drowning
361 Person Trapped on Ice
362 Water Rescue

370 Electrocution

390 Other Rescue, E.M.S. Call ot listed above
391 Rescue or E.M.S Stand-by

Incident Type Code-Hazardous Condition Basic Code 4

410 Gasoline Spill, or other Flammable Liquid
411 Odor of Gas, Gas Leak (Domestic or LP)

420 Explosive, Bomb Removal (Not a bomb scare, 720)

430 Food on the Stove
431 Excessive Heat
432 Heat from Short Circuit, Defective or Worn Insulation
433 Overheated Motor
434 Breakdown of Light Ballast

440 Power Line Down

451 Arcing, Shorted Electrical Equipment

460 Aircraft Stand-by

470 Chemical Spill

471 Radiation Leak, Radioactive Material
472 Refrigeration Leak

480 Attempt to Burn

490 Other Hazardous Condition Not listed above
491 Building Weakened or Collapsed
492 Gas Appliance Defective, Malfunction, or Misuse, Oil Burner Delayed Ignition

Incident Type Code-Service Call-Basic Code 5

510 Lock-Out (Not a Lock-In, 330)

520 Water Evacuation
530 Smoke or Odor Removal

540 Animal Rescue

550 Assisted Police or Other City Department
551 Police Matter

560 Unauthorized Burning

570 Mutual Aid-Line Box (No Duty, or False Alarm)
571 Mutual Aid-Coverage Only
572 Mutual Aid-Response to Fire Only
573 Mutual Aid-Coverage & Response
574 Covered Other Boston Company
575 Covered Other District

590 Other Service Call Not listed above
591 Water or Steam Leak (Includes Open Hydrants)
592 Public Service
593 Vehicle Accident-No Injuries
594 Defective Elevator-No Injuries (Use 350 if Persons(s) Released)

Incident Type Code-Good Intent Call-Basic Code 6

610 Smoke Scare, Odor of Smoke
620 Wrong Location
630 Controlled Burning
631 Friendly Fire (Barbecue, Tar Kettle)
640 Incident in Other Location (Vicinity Alarm)
650 Steam, Vapor, Fog, or Dust for Smoke
660 E.M.S. Call Where Injured Parties Left Scene or Transported Prior to Arrival
690 Other Good Intent Call Not Listed Above

Incident Type Code-False Alarm/False Call-Basic Code 7

710 False Alarm Malicious-Box
711 False Alarm Malicious-Box or Still from Educational Institution
712 False Alarm Malicious-Still

720 Bomb Scare

730 Alarm System Malfunction-Sprinkler
731 Alarm System Malfunction-Smoke/Heat Detector or Manual

740 Accidental Alarm (Includes Knockdowns)

790 Other False Alarm/False Call Not listed Above

Incident Type Code-Natural Disaster-Basic Code 8

810 Earthquake
820 Flood
830 Wind Storm (Includes Hurricane, Tornado, Cyclone, Etc.)
840 Lightning Strike-No Fire
890 Other Natural Disaster not Listed Above

Public Safety - North East continued

Incident Type Code-Other Situation-Basic Code 9

910 Citizen Complaint

990 Other Condition Not Listed Above
991 Assisted Other District (At Fire)

From the Southern New England Chapter of the RCMA

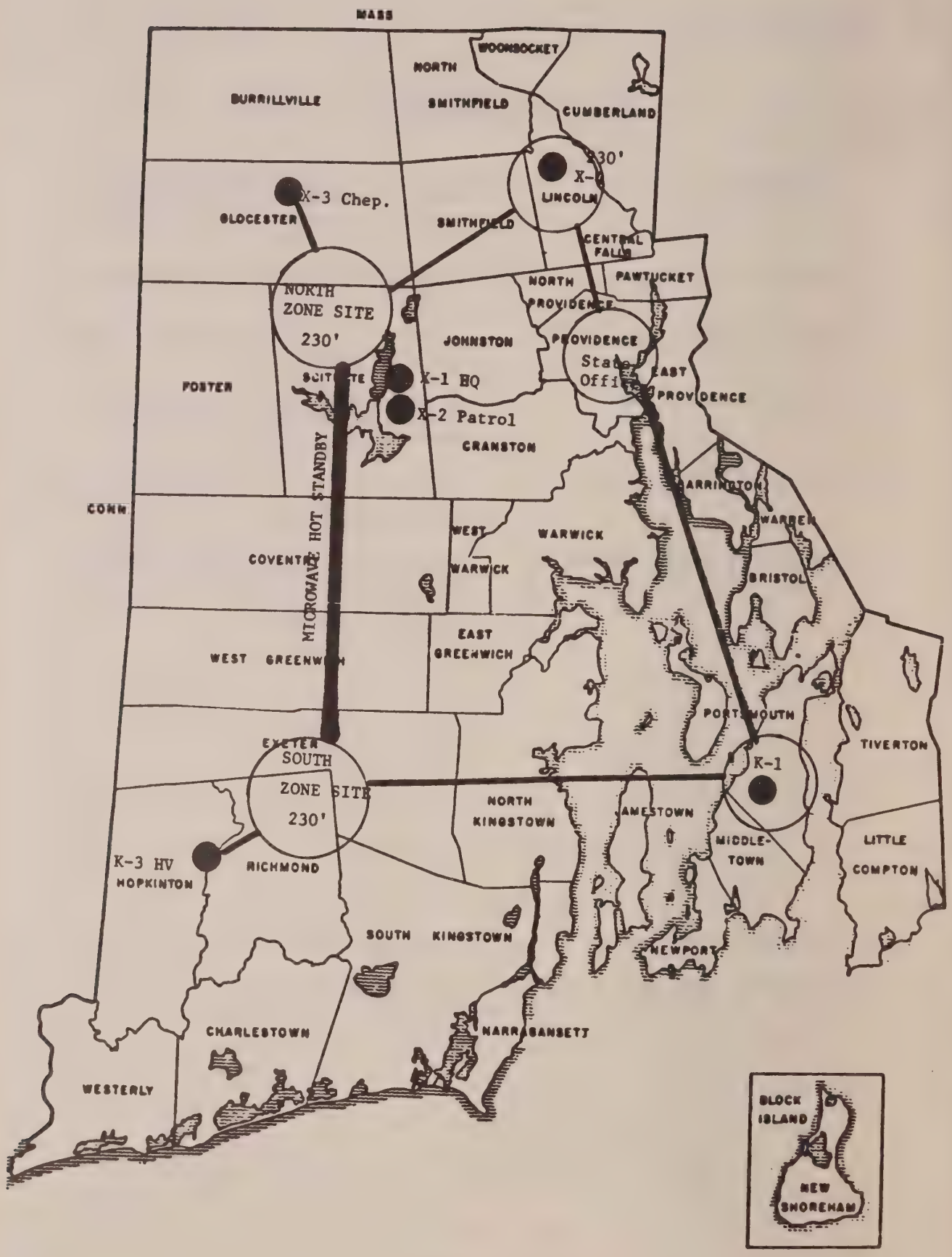
RHODE ISLAND STATE POLICE
COMMUNICATIONS INFORMATION

X-1	HEADQUARTERS No. Scituate	Detective Division, Traffic & Supply Bureau, Bloodhounds, Radio Bureau, Planning & Research, Training Division and N.C.I.C. Center.
X-2	SCITUATE PATROL, Covers:	Coventry, Cranston, Foster, Johnston & Scituate.
X-3	CHEPACHET PATROL, Covers:	Burrillville, Glocester, Foster, Johnston and part of Smithfield.
X-4	LINCOLN PATROL, Covers:	Cranston, Cumberland, Lincoln, No. Smithfield, No. Providence, Providence, Warwick and Woonsocket.
K-1	PORTSMOUTH PATROL, Covers:	Barrington, Bristol, East Providence, Little Compton, Middletown, Newport, Portsmouth, Tiverton and Warren.
K-3	HOPE VALLEY PATROL, Covers:	Coventry, Charlestown, East Greenwich, Exeter, Hopkinton, Narragansett, Richmond, So. Kingstown, Warwick, W. Greenwich, W. Warwick and Westerly.

################RUMORS TO FILL IN THE SPACE#######################

The following information is making the rounds on the West Coast pertaining to the soon to be released Fanon-Courier Scanner.

1. There is to be a Handheld and a Base version.
2. Release date is now mid October
3. 25-520 MHz AM and FM Continuous Coverage
4. IF is 750 MHZ If Channel 60 TV 747.25 video + 751.75 audio is not in your area this unit should be image free.


MASS
WOONSOCKET
NORTH SMITHFIELD
BURRILLVILLE
CUMBERLAND
330'
X-
LINCOLN
X-3 Chep.
GLOCESTER
SMITHFIELD
CENTRAL FALLS
NORTH ZONE SITE 230'
NORTH PROVIDENCE
PAWTUCKET
JOHNSTON
PROVIDENCE
State Offi
EAST PROVIDENCE
FOSTER
X-1 HQ
X-2 Patrol
CRANSTON
STANDBY
MICROWAVE HOT
CONN
COVENTRY
WEST WARWICK
WARWICK
BARRINGTON
WARREN
BRISTOL
EAST GREENWICH
WEST GREENWICH
PORTSMOUTH
TIVERTON
EXETER SOUTH ZONE SITE 230'
K-1
NORTH KINGSTOWN
JAMESTOWN
MIDDLE-TOWN
LITTLE COMPTON
K-3 HV
HOPKINTON
RICHMOND
SOUTH KINGSTOWN
NEWPORT
CHARLESTOWN
NARRAGANSETT
WESTERLY
BLOCK ISLAND
NEW SHOREHAM

New York
Broome County Police

OPERATING PROCEDURE

"10" Signals

10-1 Receiving poorly
10-2 Receiving well
10-3 Stop transmitting
10-4 OK
10-6 Busy
10-7 Out of Service - Duty Call
10-8 In Service
10-9 Repeat, Conditions Bad
10-10 Out of service - Subject to Call
10-11 Out of Service - Personal
10-12 Officials or visitors present
10-13 Advise weather and Road Conditions
10-14 Convoy or escort
10-16 Pick up Prisoner at_____
10-17 Pick up Papers at_____
10-18 Complete Present Assignment as quickly as possible
10-19 Return to your Station
10-20 What is your location
10-21 Call this station by Telephone
10-22 Take no further action on last information
10-23 Stand by until no interference
10-25 Do you have contact with_____
10-28 Check full registration (license, motor, name, etc.)
10-30 Does not Conform to Rules and Regulations
10-33 Emergency traffic at this station
10-35 Confidential information
10-36 Correct time
10-65 Clear for message assignment
10-68 Repeat the dispatch
10-97 Arrived at scene
10-98 Finished with last assignment
10-99 Unable to Receive your Signals
10-100 All cars and stations copy

"12" Signals

12-61 Drunk
12-62 Drunken Driver
12-63 Hit and Run Driver
12-64 Prowler
10-65 Suspicious Person
12-66 Fighting
12-67 Family Affair
12-68 Test
12-69 ---
12-71 Burglary
12-72 Robbery
12-73 Assault
12-74 Stabbing
12-75 Shooting
12-76 Kidnapping
12-77 Homicide
12-78 Mugging
12-79 ---
12-80 Stolen Autos
12-81 Fire
12-82 Auto Accident
12-83 Suicide
12-84 Investigate, no information
12-85 Boys annoying
12-86 Traffic Congestion
12-87 Bad Street Condition
12-88 Call Headquarters
12-89 Call Chief's Office
12-90 Call your Headquarters
12-91 Ambulance Call from Headquarters
12-92 Ambulance Call. Assist at Scene
12-93 Report to Headquarters
12-94 Burglar Alarm Ringing
12-95 ---
12-99 Emergency Hurry Call

From Thomas (PA-017):

In response to your question about the Pennsylvania State Forestry which you asked about in the March 1983 R.C.M.A. I have included some information below:

Pensylvania State Forestry

Area #3 -South-Western, PA
District #4 "Delta"
Frequency 151.3850

All counties in area #3: Allegheny, Washington, Westmoreland, Greene, Fayette, Sommerset

Ligonier Base-KQN946
Pondfield KQO-253
Uniontown KG0961 Uniontown Mine Safety Units

2/16/83 - Mock Disaster Drill at the Beaver Valley Nuclear Power Plant, Shippingport, PA

Frequencies used:

Amateur Radio-Pittsburgh

147.090 - PGH/North Hills R.A.C.E.S. - Allegheny County Emergency Operations Center (E.O.C.)
146.730 - American Red Cross Pittsburgh Chapter and Mass Care Centers at South Park and Bethel Park.

Beaver County Amateur Radio

146.850 - Ch. 1 Beaver County Emergency Operations Center (E.O.C.)
147.165 - Ch. 2 Info. going into the Beaver County area.
147.135 - Ch. 3 Info. going out of the Beaver County area.

153.470 Duquesne light, Beaver Valley
"KGG872 EA & DP" (Radiation Test Eams inside and outside the Power plant.)

151.385 Forestry "Pittsburgh Base via Wexford WGL331"

Scanning Washington, D.C. and Maryland

Send contributions to:
Eric Schneider
234 North Washington St.
Rockville, MD 20850

I am still trying to coordinate this column with Richard Barnett who heads this entire area, but unfortunately sometimes space is limited or I miss a deadline and thus this area remains empty for an issue or two. I think we are starting to get our acts together and hopefully this will become a regular insert (of course depending on your input).

As I indicated last time, I will try to finish the major Maryland State Government listings this month. First, from Chuck (MD-004) the State Department of Natural Resources:

F1:	Forestry Dept.:	East/West Division....	151.460
F2:	Parks Dept:	East/West Division....	151.325
F3:	Statewide Forestry & Parks Repeater...		151.145
F4:	Forestry Dept.:	Central Division.....	151.355
F5:	Parks Dept.:	Central Division.....	151.415
F6:	Forestry Dept.:	Southern Division.....	151.250
F7:	Parks Dept.:	Southern Division.....	151.310

Cooperative Forestry/Parks Program Regions:(by county)
West: Allehany,Frederick,Garrett,Washington
East: Caroline,Dorchester,Somerset,Talbot,Wicomico,Worcester
South:Anne Arundel,Calvert,Charles,Howard,Montgomery, Prince George's,St. Mary's
Central:Baltimore,Carroll,Cecil,Harford,Kent,Queen Anne's

Ten-Codes: Same as used by Maryland State Police

Next, some miscellaneous uses submitted by various contributers, most notibly Joe (MD-015)

Capitol Buildings/Correctional Facilities..155.755
State Penitentiaries.....153.965
State Colleges & Bowie Race Track.....155.025
Port Authority Police "Tidewater"..... 39.220
Port Authority: Baltimore Harbor/Port.....154.055
154.725
Fish & Game Administration: F1.....151.205
F2.....159.240
Bureau of Mines,Environ. Svc.,Water Res.... 31.460
New Game Commission..... 31.580
31.860

If anyone has any additions/corrections to the D.C. or Maryland State information provided during the past few issues, please send them in. Now, a quick review & update of Montgomery County (the last contribution was mine in the March 1982 issue). First, the county fire department: I received a letter from Steve (MD-017) which took me to task for the poor station locations I provided in my contribution. I must admit that I gathered that information by looking at a county map and rounding off the addresses. He has submitted a complete, and accurate listing of the fire & rescue stations which appears below. First, I have listed the updated channel allocation for the Fire Dept.:

F1: Primary Fireground.....153.950
F2: Fire & Ambulance Dispatch.....154.160 (R)
155.355 (I)
F3: Statewide Mutual Aid.....154.280
F4: Alternate Fireground/Administrative...155.100
F5: "EMS-1" - Hospital/Ambulance.....155.340
F6: Simplex Fireground.....154.160

STATION NUMBER & LOCATION	ADDRESS
1 Silver Spring	8131 Georgia Avenue (20910)
2 Takoma Park	7201 Carroll Avenue (20012)
3 Rockville	380 Hungerford Drive (20850)
4 Sandy Spring	816 Olney-Sandy Spring Rd. (20860)
5 Kensington	10620 Connecticut Ave. (20795)
6 Bethesda	6600 Wisconsin Ave. (20015)
7 Chevy Chase	8001 Connecticut Ave. (20015)
8 Gaithersburg	801 Russell Ave. (20760)
9 Hyattstown	25801 Frederick Road (20734)
10 Cabin John	7913 MacArthur Blvd. (20034)
11 Glen Echo	5920 Massachusetts Ave. (20816)
12 Hillandale	10617 New Hamoshire Ave. (20903)
13 Damascus	26334 Ridge Road (20750)
14 Upper Montgomery	19801 Beallsville Road (20704)
15 Burtonsville	15430 Old Columbia Pike (20730)
16 Silver Spring(Four Corners)	111 University Blvd., E (20901)
17 Laytonsville	21400 Laytonsville Road (20760)
18 Kensington (Glenmont)	12251 Georgia Ave. (20902)
19 Silver Spring(Mont. Hills)	1945 Seminary Road (20910)
20 Bethesda (Cedar Lane)	9041 Old Georgetown Rd. (20014)
21 Kensington (Parkland)	12500 Veirs Mill Road (20853)
23 Rockville(Rollins Ave.)	121 Rollins Ave. (20852)
24 Hillandale (Colesville)	13216 New Hamoshire Ave. (20904)
25 Kensington (Aspen Hill)	14111 Georgia Ave. (20906)
26 Bethesda (Democracy)	6500 Democracy Blvd. (20034)
27 Training Academy	10025 Darnestown Rd. (20850)
28 Gaithersburg (Mill Creek)	7272 Muncaster Mill Rd. (20855)
29 Hyattstown (Germantown)	20100 Aircraft Drive (20670)
30 Cabin John (Potomac)	9404 Falls Road (20854)
31 Rockville (Shady Grove)	9615 Darnestown Rd. (20850)
33 Rockville (Falls Road)	11430 Falls Road (20854)
40 Sandy Spring (Olney)	116911 Georgia Ave. (20832)
Rescue 1 Bethesda-Chevy Chase	5020 Battery Lane (20014)
Rescue 2 Wheaton Rescue	11435 Grandview Ave. (20902)
50 National Naval Medical Center	8901 Rockville Pike, Bldg. 20 (20014)
51 National Institutes of Health	9000 Rockville Pike, Bldg. 12 (20014)
52 Naval Ship Research & Dev. Ctr.	Bldg. 10, Carderock, MD (20084)
53 National Bureau of Standards	Bldg. 303, Service Drive, Rm. 126 (20234)
54 Walter Reed Hospital Annex	Bldg. 121, Forest Glen Annex (20910)
55 Naval Surface Weapons Center	White Oak, Silver Spring, MD (20910)
D.M.A.H.T.C. Fire Service	(Defense Mapping Agency) 6100 MacArthur Blvd.(20315)

Also on the County Fire Department, Joe (MD-004) has provided some unit numbering information:

Medic 1 - BCC Rescue Squad	Rescues 10-15 BCC Rescue Squad
Medic 2 - Wheaton Rescue Squad	Rescues 21-25 Wheaton Rescue Squad
Medic 3 - Station #3	Rescue 41 Station #26
Medic 4 - Station #12	Rescues 17-18 BCC Light Rescue
Medic 5 - Station #1	Rescue 19 BCC Heavy Rescue

Car Numbers:	Fire Prevention Division
01 - Director	FM-01 Chief
02 - Fireboard Chairman	FM-02 Assist. Chief
03 - Admin. Svc. Chief	FM-10 Lieut.
04 - Program Div. Chief	FM-11 Sgt.
05 - Lieutenant	FM-12 Sgt.
06 - Operations Chief	FM-20 Lieut.
07 - Fire Science Intern	FM-21 Sgt.
08 - Admin. Div. Staff	FM-22 Sgt.
10 - Training Officer	FM-30 Lieut.
11 - Fire Instructor	FM-31 Sgt.
12 - Rescue Instructor	FM-32 Sgt.
13 - Acad. Maint. Tech.	FM-51 Sgt.-Investigation
15 - Training Staff	FM-52 Sgt.-Investigation
20 - Communications	FM-53 Sgt.-Investigation
21-24 - EOC Shift Super.	FM-60 Lieut.-Public Ed.
25 - EOC Staff	FM-61 Sgt.-Public Ed.
30 - EMS Officer	FM-62 Sgt.-Public Ed.
31 - EMS Lieut.	
33-36 - Paramedics	

Most fire units identify as (type unit: Truck,boat,etc.)(Station #). There are three exceptions as follows:

Engines- "Engine (Station #)-(1-4)"
Brush Trucks - "Brush (Station #)-(5-6)"
Ambulances - "Ambulance (Station #)-(8-9)"

There are no additions or corrections from the information provided on the County Police in the March 1982 issue, however the County government has reorganized somewhat and added some frequencies:

Board of Education Security.....155.805
County Government Common Net:
- F1: Fire/Sheriff/SPCA/Bldgs.....155.100
- F2: Bldg. Sec./Sheriff/Disasters.....155.985

Detention Center simplex security.....494.812
Maryland National Capitol Park & Planning Commission
- F1: Park Police Primary.....151.280
- F2: Police Secondary/Maintenance.....151.340

Sheriff's Office
- F1: Primary Operations.....155.520
- F2: Secondary (County Common F2).....155.985
- F3: Alternate (County Common F1).....155.100

Transportation Department
- Roads Division
  - F1: Damascas Repeater (North)....453.950
  - F2: Poolesville Rpt. (North).....453.950
  - F3: Bethesda Repeater (South)....453.400
  - F4: Silver Spring Rpt.(South)....453.400
- Parking Enforcement/Construction.....150.995
- Ride-On Bus System
  - F1: Gaithersburg Area.....452.775
  - F2: Silver Spring Area.....452.850

Well, this column should bring up to date the information thus far previously submitted to RCMA. Next month I will try to outline the smaller counties and then on to Baltimore & Annapolis. -- Please send in information on those areas.

Until next month...

PUBLIC SAFETY — SOUTH CENTRAL:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows – Alabama, Arkansas, Louisiana, Mississippi, Tennessee, Oklahoma, and Texas:

Ken Pehl, 108 E. Centre St., Fredericksburg, Texas 78624.

Hello! Once again it's time for another edition of PS-So. Central. This issue is the last one scheduled for publication and delivery before the Texas RCMA Convention will commence. There is still time to make plans to attend. Check elsewhere in this issue for more specific details on when, where, and how to get there. We are hoping to have a good turn-out from all sections of the state so that a good info swapping session can be held. Some out of state members are also making plans on attending. We hope to see you all there.

And now let's move on to our monthly input of news from the area:

From Phil, TX-97: The Texas DPS Ch 8 in the future will be known as the "urban ch.". The source Phil obtained this from states that ch 8 will be equipped in all units stationed in an urban area and will be standardized at the frequency 156.210 MHz statewide, to be utilized for car-to-car communications. In addition, this source says all L&W units of the DPS (even those in rural areas) will be equipped with ch 8 for their car-to-car communications. (Editor's note: An Austin member has noted some THP car-to-car activity in his area on 155.070 simplex--an old Austin PD ch. Whether this frequency will be changed in the future to the reported "standard" ch 8 frequency remains to be seen. Further comments and input on this would be appreciated from other Texas members, especially those in the northern urban areas.) Thanks, Phil, for sharing this important bit of news with us.

From Larry, FL-130: Larry checks in with us to say he was visiting in our fair state a few months ago and found a number of previously published frequencies had helped out tremendously. Larry also reports the Parker Co. Vol. FD's are all active on the Special Emergency frequency of 37.90, utilized as a county-wide mutual aid net, as well as a fireground ch. Thank you, Larry, for letting letting us know about your experience in Texas monitoring. I like to hear from anyone who has had successful monitoring field trips, if for no other reason than to know whether or not we're on the right track.

From Gary, TX-94: Gary, one of our more industrious, hard working members and a very frequent contributor, has sent in a number of interesting bits of news---

Regional amateur repeaters with SKYWARN traffic during severe weather:

Tyler, TX--146.700 R
Longview, TX--146.640 R
Shreveport, LA--146.760 R
Corcicana, TX--145.290 R (in addition to the public safety freqs listed in May, 82 col.)
DFW area--146.880 R; 146.940 R

Gary also reports the Conroe (Tex) FD Ch 2--153.890--will be repeaterized in the future. Time schedule for on-line use of the repeater is unknown at the present time. A new TDC prison unit is under construction in Huntsville. It will be called Ellis II, with radio unit numbers in the 4200's series. Gary furthermore passes along a boundary map for the Texas Railroad Commission and for the Texas Forest Service (see May 82 issue for more TFS info). The maps are reproduced elsewhere in this column.

From Richard, TX-43: Rich spent some time in the Kleberg County/Kingsville, Texas area some time back and sent in a listing of active frequencies from that area, which is located near the King Ranch. Or should I say, the county is located on the King Ranch (HA, HA). Thanks, Rich, for sending this in to us.

KLEBERG COUNTY & KINGSVILLE TX Area Frequencies

Kleberg Co.--154.875 R (155.850 input?)--Sheriff Dept dispatch
Kingsville--155.730 B/M--PD dispatch ch. (S.O. units also equipped with ch too)
Kingsville FD==154.220 B/M--dispatch & fireground ch.
EMS/Hosp.--155.340 B/M--Hosp. net
Texas A & I Univ.---154.085 B/M--campus security & PD
Kingsville Local govt---154.980 B/M--city public works & administration ch.

From Marvin, TX-2: Marv writes in to say that just as surely as Murphy always strikes, there have been some recent changes, corrections, and updates to his report in the April, 83 column. The updates and corrections are:
--1) Beaumont is now serviced by a helicopter medi-vac type service called

Public Safety - South Central continued

Lifeflight IV. It is based at the Baptist Hospital. Lifeflight IV is equipped with the following communications frequencies---

462.975 R Lifeflight dispatch ch.	460.425/460.350 Houston PD Ch 5 & 7
155.775 Beaumont EMS ch.	460.525/460.550 Houston FD Ch 6 & 7
155.340 HAHERN-hosp. net ch.	154.680/155.460 TX DPS Ch's
154.280 regional Fire mutual aid ch.	166.900 Big Thicket Nat. Park Ch.
154.950/155.370 Texas Inter-city ch's	

Most of these channels are for needed co-ordinating usage. The Lifeflight dispatch repeater will be located on the KTXH-TV tower when it's rebuilt. (Ed. note: I believe that is the big 2000 ft. tower that tragically crashed down a few months ago.)

--2) Griffing Park is now incorporated into the city of Pt Arthur, so the Griffing Park PD and FD no longer exist as such.

--3) The Nederland FD operates Central Dispatch and dispatches for the municipalities of Nederland, Groves, and Pt Neches FD's; not for Bridge City FD as typed in error in the April 83 column. Central Dispatch uses 154.250 instead of 154.130 for dispatching due to adjacent county interference on the latter frequency.

--4) Some additional Beaumont Area Ambulance Services & Frequencies---

Crawford's Amb Svc 155.205 KZM 731	Kelley-Hixon Amb 155.295 WXF 515
Beaumont Paramedics 155.220 WXP 564	Silsbee Amb Svc 155.280 KEC 985

--5) All Beaumont-Pt Arthur area hospitals now have HAHERN (155.340) radios. The callsigns list---

Baptist Hosp	WXP 625	Doctor's Hosp.	KNDK 538
St Elizabeth Hosp	KTN 432	Park Place Hosp.	KFG 456
Beaumont Medical Surg Hosp	u/k	St. Mary Hosp.	KUJ 528
Mid Jefferson Co. Hosp	WQE 954	(also UHF MED ch 4)	

--6) Orange County has contracted with Bridge City FD and Vidor FD to provide rural fire protection in certain areas.

--7) The U.S. Coast Guard is equipped with the mutual aid fire ch 154.280 for co-ordinating with FD's on fires aboard ships. They use Unit 39 as radio call.

WOW!! Marvin, many, many thanks for pointing all that out to us. What more could we ever think of asking of you?! Nevertheless, let's continue to hear from you from time to time.

The All Ohio Scanner Club has generously submitted some information on an interesting communication system and thought the readers would like to hear about it. Although the article specifically deals with the E.M.S. Communication System in the state of Alabama, the same equipment and principles are also being used elsewhere as well, so the following synopsis should be of use to all readers.

The Alabama E.M.S. Communications System
by The All Ohio Scanner Club, Jerry Callam, President (OH-15)
with excerpts from Emergency Medical Services, Nov/Dec 1982 issue

This article is an attempt to present some information that is believed to be of interest to area readers. This information is a consolidation of and paraphrased from an article appearing in the November/December 1982 issue of a publication called "Emergency Medical Services", together with other added comments to help clarify certain points. We hope the readers will enjoy this article for both their information and listening pleasure.

The Emergency Medical System Communications plan in the state of Alabama is a very cost efficient method to provide consistant communication for and between EMS personnel in the field directly to the doctor at the destination hospital or other medical facility. Medical care must be administered under the direct supervision of an on-line physician, according to Alabama health laws, rules, and regulations. The following described communication system helps provide the direct supervision from physician to medical care attendant or paramedic. This contact between field personnel and medical advisors is accomplished without the use of intervening radio dispatchers. Instead, extensive use of automatic "radio-telephone switching stations" (RTSS's) provide the necessary inter-connection between the field radio units and the regular telephone line network, allowing EMS technicians to telephone whoever they may need for the necessary medical advice. The RTSS operates on the standard UHF-MED radio channels, inter-connecting with the standard telephone system, through a microprocessor controlled electronic device. In simpler terms, this means an automatic phone-patch type system, very similar to the more common mobile phone--yet differs in significant details. Dialing is made through the

use of Dual Tone Multiple Frequency tones (DTMF or more commonly recognized under the trade name "Touch Tone") and even makes this operate a bit more like the amateur radio autopatch equipped repeaters, yet is fully duplexed, (i.e., the entire call is transmitted and received simultaneously between the hospital and the field just like in normal telephone operation). If the reader is familiar with either ham autopatching or mobilephone monitoring, then the general idea can be visualized.

The radio base station (RTSS) consists of a four channel UHF repeater transmitter with multi-channel receiver monitoring capability, which constantly checks for a busy frequency and, through the electronics, avoids that frequency when a patch is desired to be made--to prevent interference (a reverse scanner type of action of sorts). The radio site of each RTSS may also implement the remote satellite receiver/voting scheme for wider area coverage. (Ed. note: The remote receiver/voting system has been described in previous issues). The telephone company provides the line drop and associated maintenance, to the base station radio. As already mentioned, the inter-connecting equipment between the radio and the phone line is automatic microprocessor-controlled electronics. Once the microprocessor is programmed, it will await an incoming call from the portable field radios. When initiating a patch, the EMS technician will dial a 3-digit access code corresponding to the first three letters of the county or area designator to bring up the "off hook" dial tone connection. Next the EMS technician dials the first two letters of the name of the local hospital or the regional (RE) code and the "*". This tells the microprocessor which local phone number to dial--the phone number having previously been programmed into the microprocessor's memory bank. When the phone at the hospital rings, which is an unlisted back line number to avoid tie-ups, and is answered, the conversation continues as in a normal phone call. A conference call can also be accomplished with the local hospital and the regional hospital both participating in the discussion with the EMS technician, by additional tone codes being encoded into the radio from the portable radio unit. Incidently, medical telemetry such as EKG's can also be transmitted over the same circuit even simultaneously with the voice instructions, if desired, provided, the hospital has the necessary demodulator electronics to extract the telemetry signal.

The radio set used in the field consists of a 12 Watt portable type set, as opposed to mobile unit installations and/or hand held sets associated with vehicular repeater mobile type set-ups. Various studies had determined the portables worked just as well and were more economical in both initial cost and later maintenance costs.

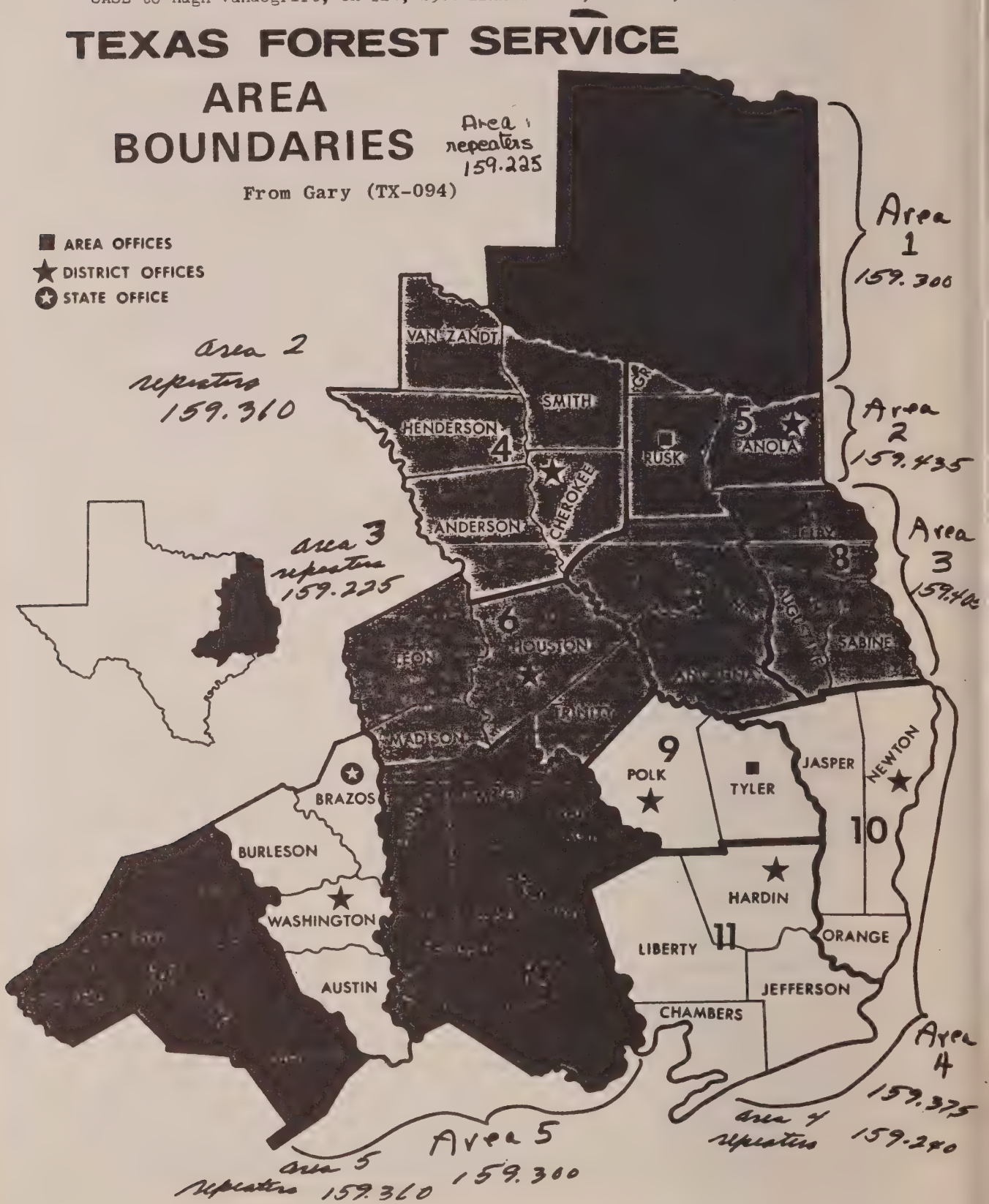
The Alabama RTSS plan started in 1979 in Western Alabama serving a seven county area and initially had eight individual RTSS transmitter sites. Presently the number of RTSS sites has expanded to 63 sites with more planned. Eventually the entire state will be covered. See accompanying map.

In concluding this brief outline of the Alabama EMS radio system, it can be seen that the plan provides a reliable, efficient, and cost conscience effort at communication between the on-line physician and the field paramedic without a third party radio operator to handle matters. In addition, since the RTSS's are completely automatic, unmanned equipment, expensive leased private phone lines to control radio functions are also eliminated. It is hoped the readers of this column have gained a greater in-sight into this type of communication system and therefore better understand the current "state of the art" to which they are listening. Systems similar to this one will be more common place due to its cost cutting and efficient advantages.

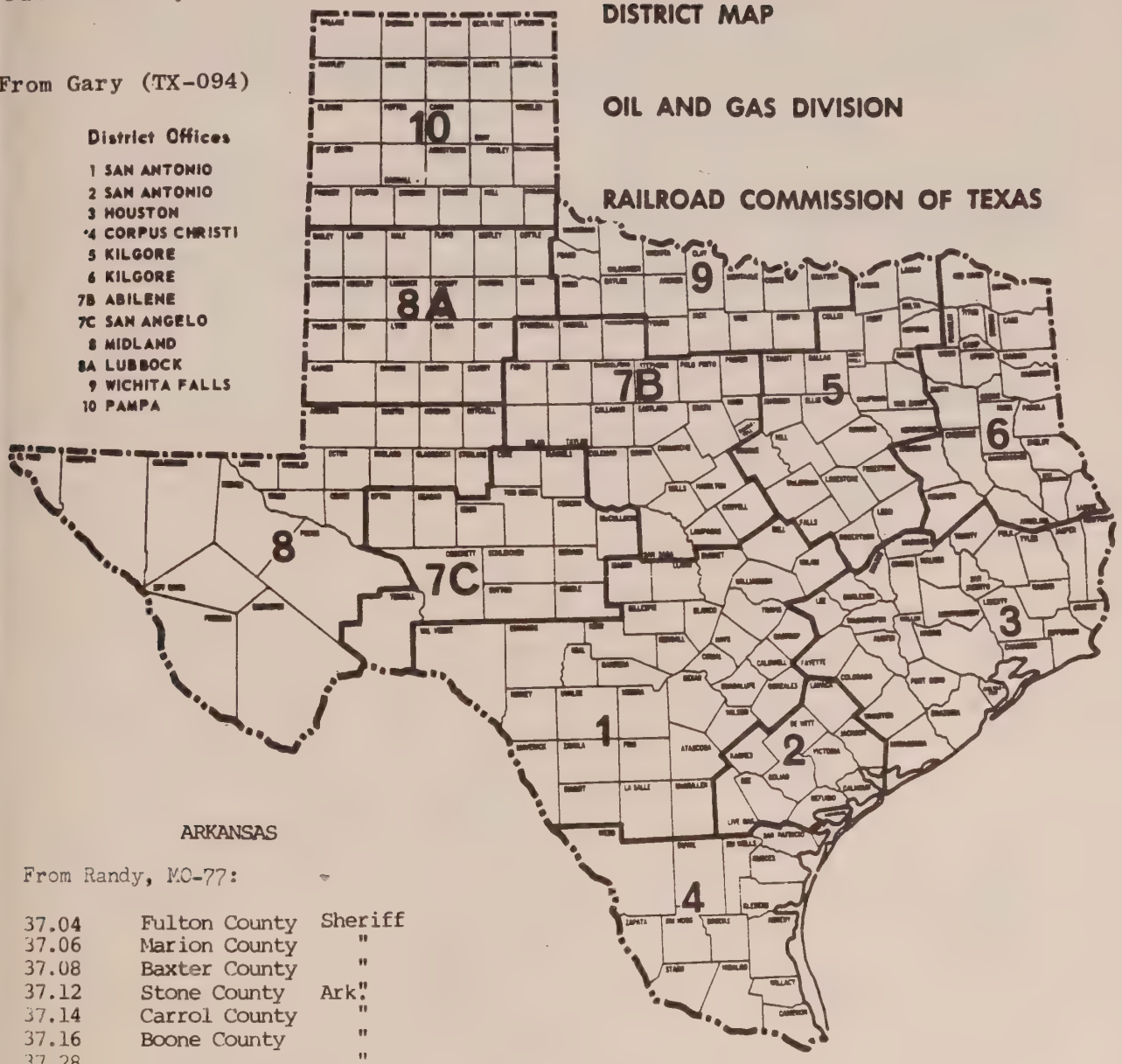
(Editor's note: May I add my own personal thanks to the AOSC for taking the time to think of us here in the South-Central region. I found this article extremely helpful in comprehending something which I was only vaguely aware of existing. I might add that it is believed this type of system is in operational use in or near the city of New Orleans, LA and also near, in, and around the greater Dallas-Fort Worth metroplex, including adjacent counties. In addition, judging from the numerous UHF-MED licenses in the Panhandle region of Texas, I would assume a similar system is functional there also. Any further comments anyone? Let's have some feedback on this topic, please. Furthermore, how about some of the Alabama RCMA members compiling a list of each Alabama EMS' RTSS site and the actual channels each site actually transmits on, since each site only uses 4 of the 8 standard UHF-MED channels. Some of us listeners find it hard to monitor all 8 channels without crowding out some other important frequencies.

Public Safety - South Central continued
So think about it out there, please.

And now with that I think we best cease flapping our jaw for this month, as we have run out of room. We will close out the column with a list from Randy, MO-77 on Arkansas frequencies. Some of these may have already been run before. But before I really stop the column for this month, I do wish to again remind all the readers of the efforts of Hugh, TX-124, and his BC-100 Club. As of this writing, two newsletters of the BC-100 Club have been produced and they are absolutely <u>great</u>! If you have not inquired into the BC-100 Club, you owe it to yourself to check this out. If you would like more info on this unique info exchange club, please check the March issue of this column and/or send a SASE to Hugh Vandegrift, TX-124, 2308 Zinnia Court, Killeen, TX 76541.



From Gary (TX-094)



ARKANSAS

From Randy, MO-77:

37.04	Fulton County	Sheriff
37.06	Marion County	"
37.08	Baxter County	"
37.12	Stone County	Ark."
37.14	Carrol County	"
37.16	Boone County	"
37.28		"
37.32	Independence County	"
37.36	Izard County	"
37.40	Searcy County	Sheriff
37.20	County to state	
37.24	County to county	
44.62	Ark. S.P.-Harrison	
44.66	Ark. S.P.-Newport	
44.74	Ark. S.P.-	
44.78	Ark. S.P.-patrol cars	
159.09	Ark. S.P.-repeater	Jasper
158.790	Ark. S.P.-repeater	Jefferson Spgs.
158.850	Ark. S.P.-repeater	Bolding & Hampton
158.730	Ark. S.P.-repeater	Hector
159.150	Arl. S.P.-repeater	Mt. Gaylor
156.210	Ark. S.P.-repeater	Marion
154.680	Ark. S.P.-repeater	Harrison & Luxora
155.460	Ark. S.P.-	???Dumas???
155.625	Ark. S.P.-Fayetteville	& Conway
156.150	Ark. S.P.-Little Rock	
158.910	Ark. S.P.-Jonesboro	
451.375	Ark. S.P.-Paragould	
451.325	Ark. S.P.-Almond	
451.465	Ark. S.P.-Calico Rock	
453.000	Ark. S.P.-Hot SPrings	
453.050	Ark. S.P.-repeater	Almond & Denard
453.150	Ark S.P.-repeater	Mena
453.350	Ark. S.P.-repeater	Paragould
458.000	Ark. S.P.-repeater	Hot Springs
153,745	Ark. Civil Defense	
153.785	Ark. Civil Defense	
158.745	Ark. Civil Defense	Chanault Mt. Repeater
37.180	Baxter County Civil Defense	
151.175	Ark. Fish & Game	
159.330	Ark. Fish & Game	
159.420	Ark. Fish & Game	
151.160	Ark. Fish & Game	
151.385	Ark. Fish & Game	
31.70	Ark. Forestry Service	
31.58	Ark. Forestry Service	
37.30	Bull SHoals PD	
37.26	Mt. Home PD & FD	

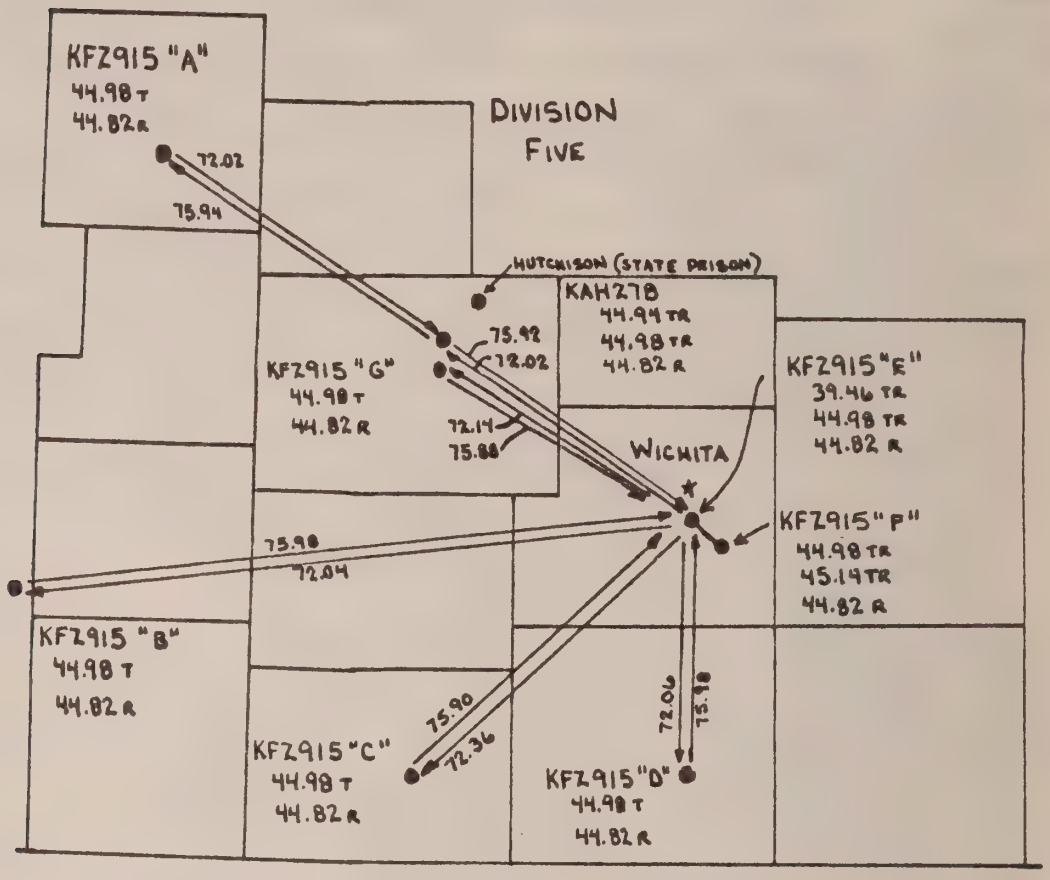
PUBLIC SAFETY — NORTH CENTRAL:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Iowa, Kansas, Missouri, Nebraska, N. Dakota, S. Dakota, and Minnesota:

Michael W. Scheel, RR #1, P.O. Box 221, Walcott, IA 52773

Welcome to Public Safety-North Central Column. The column will be short as it reflects the amount of mail I received in the last month so short it may be it still has excellant information.

This is the second map of Kansas Highway Patrol Radio system. from Audy Barber (KS-014) This Month we have District Five at Wichita.



Overland Park, KS (Harold Van Daneer KS-29)

39.46	PP	BA	Police In tersystem
453.450	PP	RP	Police KDK748
453.650	PL	RP	local Govt.
453.775	PL	RP	Public Works
460.100	PP	RP	intercity ch5 KDK748
460.225	PP	RP	CH 6 Tactical
460.375	PP	RP	CH 1 South Zone
460.450	PP	RP	CH 2
460.500	PP	RP	CH 3 North Zone

-----Misssouri----------

From Mike Redman we have the answers to questions in the April column.

St.Louis County Parks and Recreation

F1	151.295	159.405	RP PO	Operations
F2	151.145	159.255	RP PO	Security
F3	151.235	159.330	RP PO	Administration
F4	151.430	159.390	RP PO	(not in use at this time)

Some portables are equipped with talkaround on F1 & F2. The Base is Allenton on the hill behind Six Flags Park. KNC2350 is the control station at the County Emergency OPerations Center.

While going through FCC Microfliche. I made the following observations The North Dakota Dept of Highways.

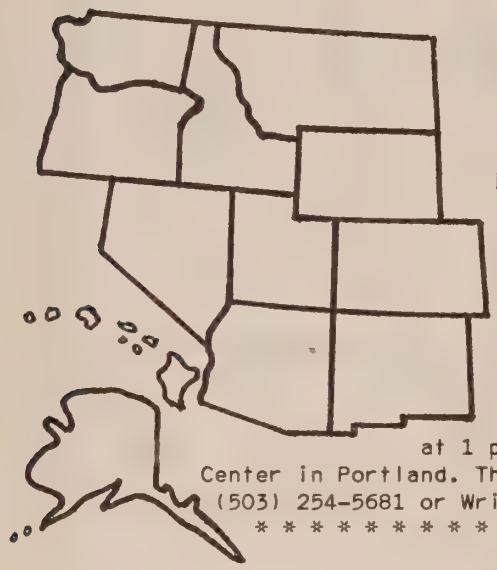
Base	Mobile	
151.040	156.060	These are not listed in any
151.055	156.105	special order has no information
151.085	156.120	about freq. were given. The only
151.100	156.135	control station listed was WBV809

at Bismark on 156.105. all Bases are licensed for all Base freq. There are 34 base sites.

The Nebraska Dept of Roads (FCC Microfiche)

The Dept is Licensed for 47.08, 47.16, 47.20, and 47.24. There are also control and remote receiver links in the 72,155, and 453 bands. Most locations are only licensed for two of four freq. Some locations are licensed for all four. Most location in the west half are on 47.08 & 47.20. THe Northest are on 47.20. And the rest of state is on 47.20 & 47.24. at this time this only a premalary survey.

Well that's all for this month. 73 -30-



PUBLIC SAFETY WEST

Send Public Safety and Special Emergency frequencies, radio system details and questions for Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming to:

George N. Hoggatt
17473 E. 16th Dr.
Aurora, CO 80011

* * * * * * * * * * * * * * * * *

IMPORTANT ANNOUNCEMENT

RCMA Meeting in PORTLAND OREGON June 12, 1983 at 1 pm at the TRI-MET Radio Center at S. E. 17th and Center in Portland. Those interested should call George DuBois at (503) 254-5681 or Write to 4905 S.E. 45th, Portland OR 97206.

* *

OOPS

The Colorado State Patrol district map in the March issue had two errors. Delta County is in District 5 and Lake County is in District 4.

In addition, I have come upon some information on the new Mobile Radio Districts (MRD) plan. In this plan, each District will be broken into several radio subdistricts. Each Troop will be at least one subdistrict and many will be two or 3 radio subdistricts. Each district will have a district wide channel and the present statewide channel will remain (154.905). In District 1, Troop A has been converted. There are three subdistricts with two sets of frequencies. They are:

BASE	MOBILE	TYPE	REMARKS
154.740	154.740	PP BM	channel 1 MRD 1A1 simplex
154.680	154.680	PP BM	channel 2 District 1 channel
154.905	154.905	PP BM	channel 3 Statewide channel
154.740	155.445	PP RP	channel 4 MRD 1A1 repeater

Subdistrict 1A1 covers Elbert County east of West Bijou Creek and Lincoln County

154.755	154.744	PP BM	channel 1 MRD 1A2 and 1A3 simplex
154.680	154.680	PP BM	channel 2 District 1 channel
154.905	154.905	PP BM	channel 3 Statewide channel
154.755	154.755	PP RP	channel 4 MRD 1A2 and 1A3 repeater

Subdistrict 1A2 covers Kit Carson County
Subdistrict 1A3 covers Cheyenne County
The only difference in these two subdistricts is the tone used to access the repeaters. Base stations for 1A1 are at Elizabeth, Kiowa, Limon and Boyero. Repeaters are at Simla and Boyero. Base stations for 1A2 are at Boyero and Burlington. Repeaters are at the same locations. The base and repeater for 1A3 is at Cheyenne Wells. The Limon Dispatcher can control the Cheyenne Wells repeater when the station there is not manned.
****

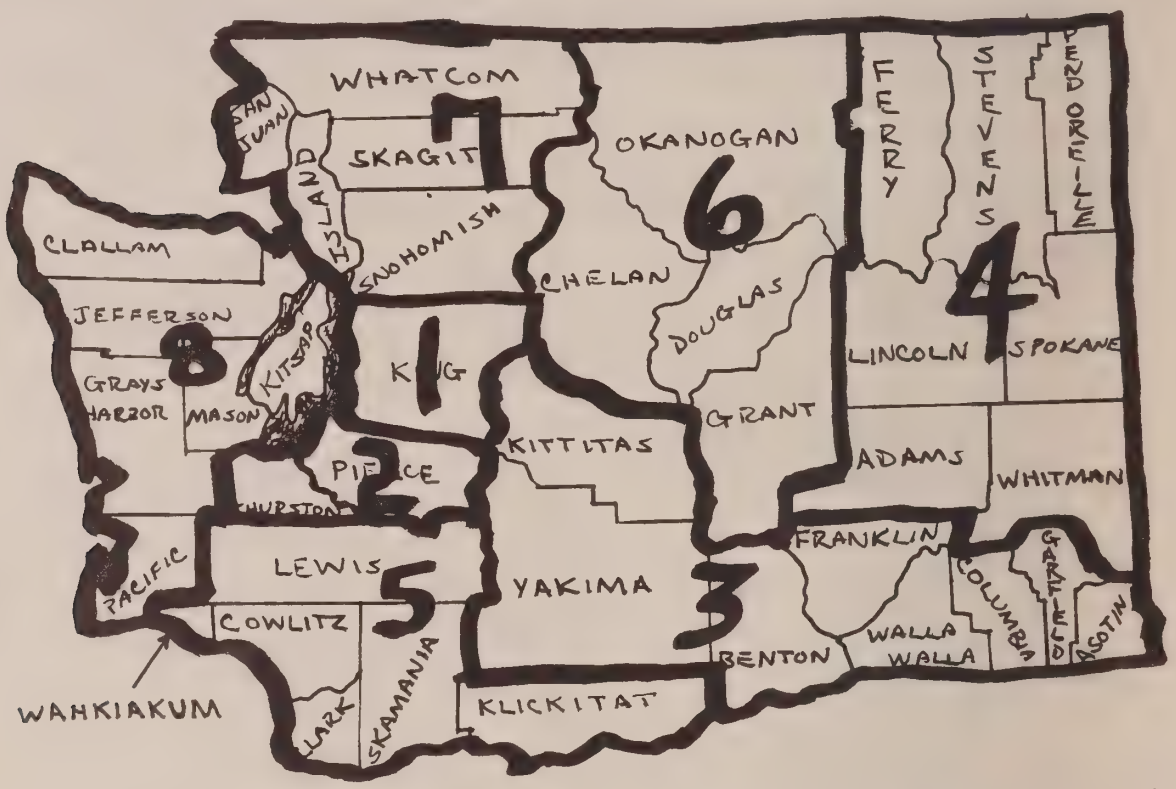
The same source as the above also had information on the repeater in SE Colorado that I mentioned several months ago. This is MRD 2C2 and covers Kiowa County, Prowers County and Baca County. The frequencies as used by the Kiowa County Sheriff, the Prowers County Sheriff, the Baca County Sheriff and the Lamar PD are:

155.130 155.130 PP BM channel 1 tactical
154.935 154.935 PP BM channel 2 District 2 channel 2
154.905 154.905 PP BM channel 3 Statewide channel
155.130 155.565 PP RP channel 4 Inter-agency

The Baca County Cars also have 2 channels (5 and 6) to contact Kansas and New M Mexico. The communications centers in Springfield and Trinidad can contact New Mexico by using control stations on 159.030 to activate their repeaters.

WASHINGTON (Ron Murray [WA-??? ex CA-VE-013])

Ron has sent in a bunch of data. This is only some of it.



Ron murray (CA-VE-013)

WASHINGTON STATE PATROL - DISTRICT MAP

Port Of Seattle-Seattle Tacoma (Sea-Tac) Airport Police/Harbor Patrol

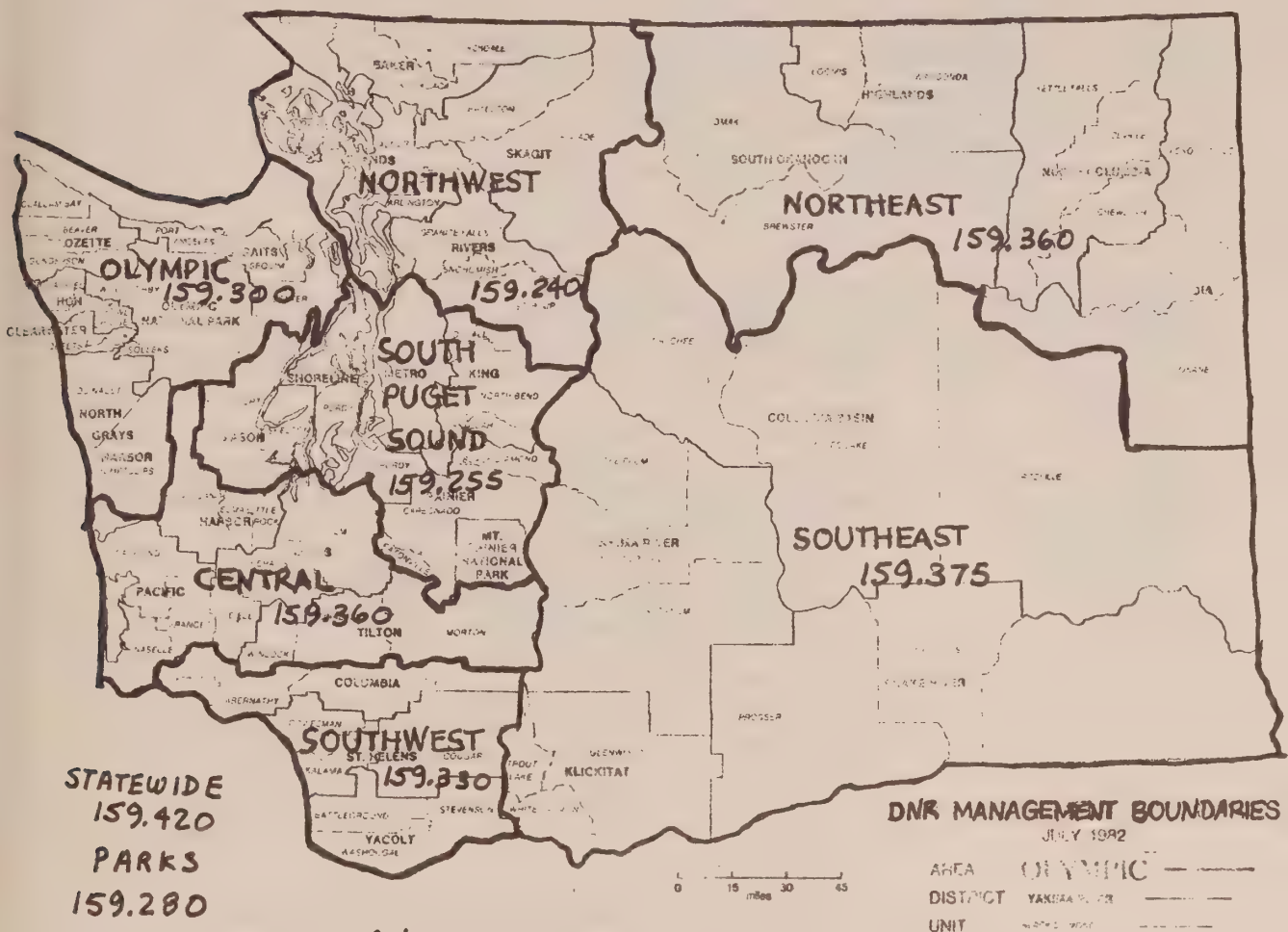
453.200 (R) "RADIO" WCA-923
458.200 (C) KZ-2230

Unit numbering appears to be as follows:
1) shift number
2) unit function(letter)
3) unit number

SHIFTS: 1-day 2-evening 3-graveyard

UNIT DESIGNATORS:
x-SAM: shift sergeant
x-TOM-x: patrol,traffic
x-PAUL-x: parking enforcement
x-DAVID-x:concourse area foot patrol
x-GEORGE-x:garage parking patrol
EDWARD-xx: non sworn personnel
HARBOR-xx: harbor patrol units

Again, this information comes from off the air monitoring and is not 100 % accurate. I (and the column) would appreciate additions and corrections. This agency is also equipped with the countywide M.A.R.S. mutual aid radio system on 458.350/453.350 WGE-806 which is cross band simulcast on 155.190 and 460.550 for countywide communications capabilities.



FIRE EQUIPMENT IDENTIFICATION-KING COUNTY FIRE PROTECTION DISTRICTS

The following is for stations dispatched by Valley Communications Center.

154.070 KIU-904 "FIRE ONE"

STATION	LOCATION	EQUIPMENT
11	Renton	E-11,E-111,L-11,A-11
12	E.Renton	E-12,A-12
13	S.Renton	E-13
21	Skyway	E-23,A-23
22	Bryn Mawr	E-24
31	Auburn	E-31,E-32,E-33,E-35,A-31,L-31,TRK-34 (mini-pump)
39	Pacific	E-38,E-39,A-39
41	Spring Glen	E-41,E-43,ATT-41,L-41,A-41
42	S.Renton(county)	E-42,ATT-42,A-42
46	Neuwaukum	E-46,A-46
47	Neuwaukum	E-47
48	???	E-48
51	Tukwila	E-51,L-51,A-51,Hazardous Materials Unit

Public Safety - West continued

52	Tukwila	E-52,E-521
61	Duwamish	E-61,A-61
71	Kent	E-71,L-71,A-71
72	Kent-Meridian	E-72,A-72
73	W.Kent	E-73
74	Kent-Benson Hill	E-74
75	Kent	E-75
76	N.Kent	E-76
77	Kent-Kentridge	E-77
81	Maple Valley	E-81,A-81,R-81,T-81
82	Georgetown	E-82,T-82
83	Lake Sawyer	E-83,A-83
84	Maple Valley Hts.	E-84,A-84
85	Hobart (???)	E-85
88	Selleck/Kangley	E-88,T-88,R-88
89	Palmer/Kanaskat	E-89

E-engine A-aid car T-tanker R-rescue L-ladder ATT-quick attack

The following information is an update to previous King County Police (Sheriff) radio frequency useage. This data is from off the air monitoring. Further info and corrections are requested. Send all info to the column editor so that all members can benefit.

FREQUENCY	REMARKS
460.200(R)WLG-68	"COUNTY" countywide ops,car to car,tactical
460.225(R) "	no longer in use, used by Mason County Sheriff
460.275(R) "	"DATA" records systems access
460.325(R) "	"NORTHEAST" area dispatch, precinct 2
460.400(R) "	"SOUTHWEST" area dispatch, precinct 4
460.450(R) " "	"SOUTHEAST" area dispatch,precinct 3 and Federal Way sub-station
460.500(R) "	"TAC-1" car to car, tactical ops, commonly referred to as "TAC"
460.525(R) "	This frequency is a simulcast repeater of 460.450, probably located in Federal Way or on Grass Mtn. near Enumclaw.
460.550(R) "	"TAC-2" M.A.R.S. (Mutual Aid Radio System) in use by most agencies countywide, is cross band simulcast on 155.190(154.650 in) and 453.350.
155.370(S)	L.E.R.N. Law Enforcement Radio Network, a statewide mutual aid channel occassionally used by King County to communicate with State Patrol vehicles.
154.965(R)WLG-68	"F-2" primary useage unknown, have heard King County "MARINE" units, "SAM" (traffic) units, useage in mountainous areas,car to car and car to radio.(153.995 input)
153.755(S)KBL-995	"F-3" in King County Police units, occassional car to car and car to "OES". This frequency is used as King County OES primary.

Notice the channel designations of "F-2" and "F-3". I have not been able to determine if there is an "F-1" or what frequency that it may be. Possibilities include 155.160, 155.370,155.805 (King County-Boeing Field Airport). Although I have listed LERN as one of these, the officers usually refer to it as LERN. I am assuming that since both "F-2" and "F-3" are VHF-high band, that a possible "F-1" would also be VHF-high band. Another possibility is that it is 154.965 simplex(talk-around) although I have not monitored that frequency in that mode as of yet.

SEATTLE POLICE DEPARTMENT KRV-381 (Matt Mercer [WA-012])

Patrol-Dispatch Units and Location

(F-3) 460.475 (R)	South	Sam	South Park-Skyway Areas
Robert	Rainier District	Adam	Patrol Wildcar
William	West Seattle Area	Zebra*	Metro Squad - Crime Unit

*Metro involves public transit, with plainclothes officers riding on various buses for rider's protection.

Public Safety - West continued

(F-4) 460.075 (R) North

Nora	North Seattle Area
Boy	Ballard District

(F-5) 460.125 (R) East-Central

Charlie	Capital Hill District
George	Garfield District
Edward	Patrol Wildcar

(F-6) 460.175 (R) West-Central)

Queen	Queen Anne District
David	Downtown Seattle
King	King Street District
Union	University (of Wash.) District

MISC.

Tom	Traffic Division
7-Tom	Traffic Enforcement
8-Tom	Traffic Investigation and Meter Maids
9-Tom	Traffic Escort and Parade Details
Frank	Horse Patrols
Ida*	Metro Squad - Special Operations
Lincoln	Detox Pick-up Van (F-6) 460.175

MONTANA (Jeff J. Minckler [MT-005])

In Montana, there are several frequencies that are used throughout the state by hospitals, ambulances and various law enforcement agencies. If traveling through our state, these frequencies should keep you interested:

State Law Enforcement Net (#1)	39.82
State Law Enforcement Net (#2)	39.88
State Disaster Emergency	39.98
Highway Patrol (low band main)	39.92
Highway Patrol (high, general use)	155.475
Highway Patrol (high, general use)	155.550
Highway Patrol (high, repeater)	154.665
Highway Patrol (high, repeater)	154.815
Highway Patrol (high, repeater)	154.920
Fish, Wildlife & Park Service	39.90
Hospital, Ambulance & Life Flight	155.280

The Highway Patrol just installed the high band equipment in cars and stations, and the dedication of specific channels for a specific type of communication is apparently still being jelled. The Patrol still makes use of the low band main channel (and the State Law Enforcement Net channels) for some car-to-car and station communications, and to communicate with the various county sheriff departments. All county sheriff offices have the State Law Enforcement Net channels, but use other low band frequencies for their local communications. With just a few exceptions, the following frequencies cover local sheriff communications (and many city & town police departments):

39.50 39.52 39.54 39.56 39.60 39.62 39.66
39.70 39.72 39.76 39.80 39.84 39.86 39.94
39.96

The central part of Montana is scattered with missles, and the unclassified S.A.C. frequencies are sometimes worth scanning:

Strategic Air Command	149.505	149.535

If you are traveling across the state, perhaps you would be interested in listening to the police departments in some of Montana's larger towns:

	MAIN	SECOND
Kalispell Police	39.62	39.88
Great Falls Police	453.050	453.300
Missoula Police	39.94	39.72
Helena Police	154.965	155.100
Bozeman Police	154.725	154.652
Butte Police	39.80	39.70
Billings Police	155.610	154.725
Miles City Police	39.82	39.98
Glendive Police	39.88	39.96

Finally, if your travels to Montana find you in one of our two parks, you may find some interesting chatter on these frequencies:

Glacier National Park	166.375	170.100
Yellowstone National Park	166.375	

Updated: 3/15/83 [JJM] Jeff uses this list in his PRO-2002

SCANNER BANK #1

1	HELENA POLICE	154.965
2	L&C SHERIFF	39.76
3	L&C SHERIFF CAR RPTR	154.725
4	EAST HELENA POLICE	39.86
5	STATE LAW ENFRC #1	39.82
6	STATE LAW ENFRC #2	39.88
7	STATE DISASTER EMERG	39.98
8	CITY OF HELENA (MAIN)	155.100
9	CITY OF HELENA	155.040
10	LEWIS & CLARK COUNTY	153.785

SCANNER BANK #2

11	HIGHWAY PATROL (LOW)	39.92
12	HIGHWAY MAINTENANCE	47.04
13	MOUNTAIN VIEW SCHOOL	155.895
14	ST. JOSEPH'S REPEATER	452.225
15	ST. JOSEPH'S REPEATER	457.225
16	TELEPHONE (MT BELL)	152.630
17	HELENA ANSWERING SRVC	152.150
18	HAM REPEATER	146.760
19	HELENA AIRPORT TOWER	118.300
20	HELENA GROUND TO AIR	122.800

SCANNER BANK #3

21	AMBULANCE/HOSPITAL #1	155.280
22	AMBULANCE/HOSPITAL #2	155.340
23	FOREST SERVICE	169.175
24	HIGHWAY PATROL (HIGH)	154.920
25	HIGHWAY PATROL (HIGH)	155.475
26	HIGHWAY PATROL (HIGH)	155.550
27	HIGHWAY PATROL RPTR	154.665
28	HIGHWAY PATROL RPTR	154.815
29	HIGHWAY PATROL RPTR	159.210
30	HIGHWAY MAINTENANCE	47.04

SCANNER BANK #4

31	LOCAL LAW ENFORCEMENT	39.50
32	LOCAL LAW ENFORCEMENT	39.52
33	LOCAL LAW ENFORCEMENT	39.54
34	LOCAL LAW ENFORCEMENT	39.56
35	LOCAL LAW ENFORCEMENT	39.60
36	LOCAL LAW ENFORCEMENT	39.62
37	LOCAL LAW ENFORCEMENT	39.66
38	LOCAL LAW ENFORCEMENT	39.70
39	LOCAL LAW ENFORCEMENT	39.72
40	LOCAL LAW ENFORCEMENT	39.76

SCANNER BANK #5

41	LOCAL LAW ENFORCEMENT	39.80
42	STATE LAW ENFRC #1	39.82
43	LOCAL LAW ENFORCEMENT	39.84
44	LOCAL LAW ENFORCEMENT	39.86
45	STATE LAW ENFRC #2	39.88
46	FISH & GAME	39.90
47	HIGHWAY PATROL (LOW)	39.92
48	LOCAL LAW ENFORCEMENT	39.94
49	LOCAL LAW ENFORCEMENT	39.96
50	STATE DISASTER EMERG	39.98

BILLINGS

22	BILLINGS POLICE #1	155.610
23	BILLINGS POLICE #2	154.725
28	BILLINGS FIRE #1	154.345
29	BILLINGS FIRE #2	154.340
30	ST. VINCENT'S RPTR	451.025

BOZEMAN

22	BOZEMAN POLICE #1	154.725
23	BOZEMAN FIRE #1	154.250
28	CITY OF BOZEMAN	158.820
30	GALLATIN COUNTY FIRE	153.770

BUTTE

22	CITY OF BUTTE	155.865
23	SILVER BOW COUNTY	154.980
28	BUTTE FIRE #1	154.430
30	BUTTE FIRE #2	154.130

FAIRFIELD

22	TETON COUNTY	154.965
23	GREENFIELD IRREGATION	46.54

GREAT FALLS

22	GREAT FALLS POLICE #1	453.050
23	GREAT FALLS POLICE #2	453.300
28	GREAT FALLS FIRE #1	154.415
29	GREAT FALLS FIRE #2	154.235
30	AMBULANCE/HOSPITAL	462.950

	MISSOULA	
22	MISSOULA FIRE #1	154.430
23	CITY OF MISSOULA	154.040
28	MISSOULA CNTY FIRE #1	46.06
29	MISSOULA CNTY FIRE #2	46.08
30	MISSOULA AIRPORT TWR	118.400
	COLUMBIA FALLS	
22	FLATHEAD COUNTY FIRE	158.805
23	FLATHEAD COUNTY	155.760
28	COLUMBIA FALLS CITY	154.085
29	COLUMBIA FALLS CITY	155.175
	CANADA	
22	B.C. R.C.M.P.	139.410
23	B.C. R.C.M.P.	139.245
28	B.C. R.C.M.P. (TAC 1)	139.080
29	CRANBROOK POLICE	139.590

SEARCH RANGES	
BANK 1 LOCAL LAW	39.20 - 39.98
BANK 2 CITY FIRE	154.130-154.445
BANK 3 CNTY FIRE	46.06 - 46.52
BANK 4 AIRCRAFT	118.100-122.900
BANK 5 WEATHER	162.400-162.550
SPECIAL	155.160-155.385
TELEPHONE	152.510-152.810
RAILROAD	160.160-161.565
REPEATERS	451.000-463.000
ALL FREQS	30.00 -512.000

PUBLIC SAFETY - CALIFORNIA

Send Public Safety and Special Emergency frequencies, radio system details and questions to:

Public Safety, California, P.O. Box 3962, Santa Fe Springs, CA 90670-1962

JUNE 1983 PUBLIC SAFETY-CALIFORNIA

At the RCMA Greater L.A. Area meeting on March 18 our guest speaker was Gene Hughes. It is fascinating to hear of his experiences. On top of this wonderful speaker was a showing of the CHP Mustang GT. This is the vehicle advertised by Ford as the "car that chases Porsches for a living." This two-door has a 5.0 liter (302 c.i.), high-output engine capable of accelerating from zero to 50 mph in 6.3 seconds, with a top speed of 126 mph. The CHP has purchased 400 of the specially equipped 1982 Mustangs. Ford equipped the order with heavy duty components not available on stock cars. Ford took brakes and wheels from it's larger Fairmont model and put them into the CHP Mustang to enhance handling and durability. It has rack and pinion steering, MacPherson struts, coil springs and an anti-sway bar. The engine is coupled with four-speed overdrive transmission and has Mallory E641-8 engine "REV" limiter set at 5200 RPM which is designed to extend engine life. The CHP admits there are some cars that the Mustang cannot outrun, such as the $50,000 Ferrari 308 which can do 140 plus mph or the Porsche 911 which does 14.7 seconds in the quarter mile. But for the money, the Mustang is the most cost effective muscle car and proficient enough to keep most high speed violators in check. Testing by the CHP had the Mustang doing 15.5 seconds in the quarter mile.

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From BOB: San Jose shopping center freqs; Valley Fair, 151.775; Eastridge Mall, 464.475; Oakridge Mall 464.825. (BOB CA-SC-021)

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From ROBERT (CA-OR-026): He has answered Ralph (CA-LA-504) about what freqs Westec Secu ty use. I believe that they primarily use 800 mhz trunking and are also licensed on 154.57 KA83566, 463.85 KCA353 in Escondido, 461.70 KNAG976 in Dulzura, 463.675 KXL762 in Indio.

Orange County Raceway is on 151.625 mhz. Activity such as "get those people out of the way or they'll become hood ornaments" or "two 5 second cars coming down."

Dever Communications, RT 2 Box 277C, Hot Springs, Ark. 71901 has a brochure with scanners and assorted related items. Bill also is interested in Police Patches and will buy, sell or trade.

Seen recently was a State of California Humane Society auto with a high band antenna and a 800 mhz gain antenna. It puzzles me too.

Tidbits; 154.055 Calif. Youth Auth. in Chino; 153.875 Dept. of corrections in Norco; 153.755 Metro State Hosp. in Norwalk; CYA Nellis Whittier on 39.10 base, 39.04 car to car and 39.02; State Hospitals on 39.12 base and 39.04 car to car; Univ. of Cal. Irvine F1 155.535, F2 155.505, F3 155.55, F4 154.92; Calif. State Water Resources licensed on 151.205/159.24, 151.235/159.255, 159.45 and 159.465; 807.3125 is Los Angeles Co. Youth and Gang Detail; 151.16 L.A. Co. Flood Control with 159.405 for paging; Culver city PD F1 156.09, F2 155.985; Montebello PD F1 155.73, F2 155.865, F3 156.15; Monterey Park PD F1 155.565, F2 155.415, F3 154.89; San Diego Port District F1 156.15, F2 155.895.

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From NEAL:

151.04	L.A. CO. Road Dept. (Main office) 158.985 in
150.995	L.A. CO. Road Dept. (Traffic signals) 159.06 in
151.055	L.A. CO. Road Dept.
151.10	Burbank Public Works
159.195	Glendale Public Works KBB750
159.24	Castaic Dam
154.515	Life Flight/U.C.S.D. Hospital San Diego

Northern Calif. has a newsletter for monitors. Golden Gate Commications Associations, C/O James Zuchelli (Editor), PO Box 1861, Modesto, CA 95353 offers a sharp info filled newsletter for $12.00 a year.

From DAVID (CA-SF-025)

PROFILES ON MARIN'S FIRE DEPARTMENTS:

It is my intention to provide current material on Bay Area Fire Departments. Presently, I am working on Marin County. This installment provides material on the Tiburon Fire Protection District.

JURISDICTION: Tiburon Fire District provides coverage for: City of Tiburon, unincorporated areas on the Tiburon Peninsula, and the City of Belvedere.

FREQUENCIES: Tiburon Fire is on Control 6(46.5mhz); and County Mutual Aid is 46.12 mhz (Frequency 13).

PARAMEDICS: Tiburon Fire District is in Paramedic Zone-South and serviced by Rescue 30 which is housed at Headquarters Station, Mill Valley Fire Department.

IDENTIFIERS: All fire stations in Marin County (except county fire) are numbered on a countywide system as are battalions. That is why Tiburon has fire stations 10,11, and 12 and Battalion Chief 5.

STATION #10: 4301 PARADISE DRIVE, TIBURON.
ENGINE #10: CROWN PUMPER
AMBULANCE #32 (Identifier A32) **IDENTIFIER c-10: OFFICER ON DUTY**
SQUAD # 11: 1 ton BRUSH RIG

STATION #11: 1679 TIBURON BLVD., TIBURON (HEADQUARTERS)
ATTACK #11: 1000 GPM PUMPER
ENGINE #11: 1500 GPM PUMPER

ENGINE #11R: 1000 GPM PUMPER (Volunteers)
TRUCK #11: AERIAL LADDER
UNIT #11: 1 TON PICKUP
CAR #11
CHIEF #1 (Identifier CHIEF 1)
BATTALION #5: PLATOON COMMANDER

STATION #12: COMMUNITY ROAD, BELVEDERE (VOLUNTEERS ONLY)
ENGINE #12: 750 GPM PUMPER
UNIT #12: 1 TON PICKUP

RESCUE #30: ASSIGNED TO HEADQUARTERS STATION, MILL VALLEY FD. PROVIDES PARAMEDIC PROTECTION TO PARAMEDIC SOUTH ZONE. R30 IS A ONE TON TRUCK (SQUAD) WITH TWO PARAMEDICS ON BOARD.

From DAVID (CA-SF-025)

MARIN COUNTY SHERIFF'S OFFICE:

The Marin County Sheriff's Office provides patrol, investigative, and jail services for Marin residents.

FREQUENCIES:
CONTROL 1(PRIMARY DISPATCH CHANNEL): 39.24 mhz
CONTROL 2(COUNTYWIDE WANTS/WARRANTS FOR ALL PDs and SHERIFF): 39.52 mhz
(MARIN EMERGENCY SERVICES USES CONTROL 2 FOR EMERGENCIES)
CONTROL 3(FOR EXTENDED CONVERSATIONS): 39.36 mhz

IDENTIFIERS:
SHERIFF UNITS ARE 1 SERIES:
DAYSHIFT PATROL: 1Q units
SWING PATROL: 1 ZEBRA units
GRAVE PATROL: 1 BAKER units
PARKING ENFORCEMENT: 1 TOM units
DETECTIVES: 1 KING units
ADMINISTRATORS: 1 ADAM units
RESCUE BOAT: RESCUE 1
RESERVE DEPUTIES: 1 U units

PATROL DISTRICTS:

Marin County is divided into four patrol districts. The county also dispatches for Marin County Community College District on Control 1.

DISTRICT 1: Southern Marin including Marin City, Strawberry. The substation is at Marin City. District 1 units are 10-19. Eg: 1Q15

DISTRICT 2: Covers the unincorporated areas in the Ross Valley Area including Kentfield, Sleepy Hollow, etc. Substation is in Kentfield and adjacent to Kentfield Fire. Units: 20-9.

DISTRICT 3: Patrols Central and Northen Marin including Santa Venetia and Ignacio. Operates out of County Civic Center in San Rafael. District 3 units are 30-9.

DISTRICT 4: Patrols Western Marin from Pt. Reyes Station Field Office.
BEAT 1: OLEMA TO VALLEY FORD, AND FROM INVERNESS TO SONOMA COUNTY LINE.
BEAT 2: MUIR BEACH TO OLEMA,(Includes Mt. Tamalpais State Park)
BEAT 3: SAN GERONIMO TO NICASIO and SAMUEL TAYLOR STATE PARK

DISTRICT 5: MARIN COMMUNITY COLLEGE DISTRICT POLICE PATROL COLLEGE OF MARIN IN KENTFIELD AND INDIAN VALLEY COLLEGE IN IGNACIO. THEY ARE 50-9 units. Usually only 1 or 2 units are on duty. THEY ARE INDEPENDENT OF THE SHERIFF but are dispatched on CONTROL 1 and routinely provide backup to district 2 deputies when needed.

STAFF: 190 PERSONNEL AS FOLLOWS: ADMIN(8); PATROL (71); INVESTIGATIONS (14) CIVIL (19); BALIFFS (12); JAIL (30) and COMMUNICATIONS (36).

From DAVID (CA-SF-025)

MARIN FIRE SERVICES:

This installment provides material on Ross Public Safety Department and Alto-Richardson Fire District.

ROSS PUBLIC SAFETY:
Frequency: POLICE-39.44; FIRE-46.5

Stations: STATION 18 at 37 SIR FRANCIS DRAKE BLVD

Equipment: a) ONE CLASS #1 PUMPER TRUCK
b) ONE CLASS #2 PUMPER TRUCK
c) ONE LADDER/RESEUE TRUCK
d) ONE 4WD RESCUE TRUCK (also MOBILE COMMAND POST)

Personnel: 10 FULL-TIME SAFETY OFFICERS; 25 VOLUNTEER OFFICERS

Paramedics: Ross is in Ross Valley Paramedic Zone which is not yet activated. When the zone is activated, the zone Paramedic Rescue Vehicle will be housed at Ross Station 18 and all Ross Valley Zone Fire Services will contribute sufficient staff to allow for full-time service.

ALTO-RICHARDSON FIRE DISTRICT
Frequency: 46.5 mhz (Control 6)

Stations and Equipment: STATION 8: 27 SHELL RD
E-8: 1977 GMC PUMPER (1000 GPM)
SQUAD 9: 1950 SEAGRAVES (1000 GPM): VOLUNTEERS

STATION 9: 308 REED BLVD., HEADQUARTERS
E-9: 1977 GMC PUMPER (1000 GPM)
SQUAD 4: 1952 PUMPER: VOLUNTEERS
TRUCK 14: 65 FOOT AERIAL
UNIT 9: 1970 PICK-UP (FOR ON-DUTY BATTALION CHIEF)
UNIT 9A: 1977 PICK-UP (FOR FIRE CHIEF)

Personnel: 1 CHIEF, 3 BATTALION CHIEFS, 2 CAPTAINS, 9 FIREFIGHTERS, 2 PARAMEDICS
Shift: Each shift has 5: Station 8: 1 CAPTAIN, 1 FIREMAN
Station 9: 1 BATTALION CHIEF, 2 FIREMEN

Jurisdiction: Unincorporated areas between Mill Valley and Tiburon, commonly referred to as Strawberry.

Paramedics: Alto is in Southern Paramedic Zone. Rescue 30 is housed at Mill Valley Fire Headquarters Station. Alto contributes 2 fire paramedics to the Southern Zone staffing.

FIRE PLAN: Marin County has a countywide fire plan. Except for County Fire, San Rafael, and Novato, all fire departments and districts have a county number. All fire departments (including County FD, San Rafael, and Novato) are participants in the fire plan. I will be providing material on the county fire plan in the future.

CONTRA COSTA CONSOLIDATED FIRE DISTRICT:

AREA COVERED: The district provides fire protection for 185 square miles of Contra Costa County including: CONCORD, WALNUT CREEK, PLEASANT HILL, MARTINEZ, LAFAYETTE, CLAYTON, and the unincorporated areas of the Diablo Valley.

FREQUENCIES: PRIMARY DISPATCH (FREQUENCY 7): 46.3200 mhz
SECONDARY DISPATCH (FREQUENCY 6): 46.2200 mhz
MUTUAL AID (FREQUENCY 5): 46.1000 mhz
GENERAL ADMINISTRATION (FREQUENCY 4): 46.3800 mhz

COMMAND IDENTIFIERS: FIRE CHIEF IS "7100"
BATTALION CHIEFS ARE "CHIEF 1", etc.

ADMINISTRATION OFFICES: ADMINISTRATION COMPLEX, 2010 GEARY, PLEASANT HILL
TRAINING COMPLEX/TOWER, 2945 TREAT, CONCORD
COMMUNICATION COMPLEX, 2010 GEARY, PLEASANT HILL

FIRE STATIONS:

STATION 1	1330 CIVIC, WALNUT CREEK
STATION 2	2012 GEARY, PLEASANT HILL
STATION 3	2273 WHITE PARK, WALNUT CREEK
STATION 4	700 HAWTHORNE, WALNUT CREEK
STATION 5	205 BOYD, PLEASANT HILL
STATION 6	2210 WILLOW PASS, CONCORD
--also WOOD SHOP AND STORAGE FACILITY at #6	
STATION 7	DOES NOT EXIST
STATION 8	4647 CLAYTON, CONCORD
STATION 9	209 CENTER, PACHECO
STATION 10	2955 TREAT, CONCORD
--also WAREHOUSE, AUTO SHOP, AND HOSE TOWER at #10, near TRAINING COMPLEX	
STATION 11	5850 CLAYTON, CLAYTON
STATION 12	1240 SHELL, MARTINEZ
STATION 13	251 CHURCH, MARTINEZ
STATION 14	521 JONES, MARTINEZ
STATION 15	3338 MT. DIABLO, LAFAYETTE
STATION 16	4007 LOS ARABIS, LAFAYETTE
STATION 17	620 ST. MARY, LAFAYETTE
STATION 18	145 SUSSEX, CLYDE
STATION 19	1019 GARCIA RANCH, BRIONES

EQUIPMENT IDENTIFIERS:

Are 100 series and run from #100 (1926 LaFrance on display at S.14) to #188 (1982 Van Pelt) at S.15). Most identifiers are pumpers.

SELECTED IDENTIFIERS:

#103 -- tanker at S.1	#122 -- 100' aerial at S.6
#135 -- flatbed crane at S.14	#154 -- 85' platform at S.1
#163 -- forklift at S.10 (warehouse)	#164, 165 -- graders at S.10 (warehouse)
#182 -- fuel truck at S.15	

INFORMATION COURTESY OF: WILLIAM CULLEN, ASSISTANT CHIEF-OPERATIONS
CONTRA COSTA CONSOLIDATED FIRE DISTRICT

The Fanon Courier pocket scanner will have a 750Mhz area I.F. freq which may eliminate much intermodulation. Shown below is a keyboard design for the handheld sent by an anonymous member.

SCAN	LOCK	PRIORITY	CLOCK
SEARCH	LOW 1	HIGH 2	CLOCK SET 3
manual	5 khz 4	12.5 khz 5	25 khz 6
UP	NFM 7	WFM 8	AM 9
DOWN	SPEED 0	DELAY .	ENTER

FREQUENCY 1: 154.0100
FREQUENCY 2: 154.2800 (WHITE MUTUAL AID)

SAN JOSE FIRE DEPARTMENT STATION LOCATIONS, MANNING, AND RESOURCES

From DAVID (CA-SF-025)

Station	District	Address	Resources	Manpower	B/C	Capt	F/E	F/F
1	1	201 No. Market St.	2-piece Engine, 2 piece Truck	10		2	4	4
2	1	2933 Alum Rock Ave.	Engine, Patrol Tanker, Tanker, 2 piece Truck	10		2	4	4
5 (Bn HQ)	1	1380 No. 10th St.	2-piece Engine, 2-piece Truck, B/C	11	1	2	4	4
19	1	1025 Piedmont Rd.	Engine, Patrol Tanker	4		1	2	1
20	1	1433 Airport Blvd.	2 Engines, Light Water, Rescue Truck	6		1	3	2
23	1	1771 Via Cinco de Mayo	Engine	4		1	1	2
25	1	1590 Gold St., Alviso	Engine	3		1	1	1
3 (Bn HQ)	2	98 Martha St.	2-piece Engine, 2-piece Trcuk, B/C	11	1	2	4	4
8	2	802 E. Santa Clara St.	Engine	4		1	1	2
11	2	2840 The Villages Pkwy.	Engine	4		1	1	2
16	2	2001 So. King Rd.	Engine, Patrol Tanker, 2-piece Trcuk	9		2	4	3
21	2	1749 Mt. Pleasant Rd.	Engine	4		1	1	2
24	2	2525 Aborn Rd.	Engine, Patrol Tanker	4		1	2	1
26	2	528 Tully Rd.	Engine	4		1	1	2
4	3	454 Auzerais Ave.	Engine	4		1	1	2
6	3	1386 Cherry Ave.	2-piece Engine	5		1	2	2
7	3	800 Emory St.	Engine	4		1	1	2
10 (Bn HQ)	3	511 Monroe St.	Engine, 2-piece Truck, B/C	10	1	2	3	4
14	3	1201 San Tomas Aquino	2-piece Engine, 2-piece Truck	10		2	4	4
15	3	1248 Blaney Ave.	Engine	4		1	1	2
9	4	3410 Ross Ave.	Engine, 2-piece Truck	9		2	3	4
12	4	502 Calero Ave.	Engine, Patrol Tanker	4		1	2	1
13 (Bn HQ)	4	4380 Pearl Ave.	2-piece Engine, 2-piece Truck, B/C	11	1	2	4	4
17	4	1494 Ridgewood Dr.	Engine	4		1	1	2
18	4	4430 Monterey Highway	Engine, 2-piece Truck, Tanker	9		2	4	3
22	4	6461 Bose Lane	Engine, Tanker	4		1	2	1
27	4	239 Bernal Rd.	Engine	4		1	2	1
28	4	20399 Almaden Rd.	Engine	4		1	1	2
			Total	174*	4	38	64	68

* Total Line Duty Positions

FIRE STATION RESPONSE AREAS

SAN JOSE FIRE DEPT.

NOTE: SJFD ALSO PROVIDES FIRE PROTECTION FOR SAN JOSE MUNICIPAL AIRPORT.

INFORMATION COURTESY OF
SAN JOSE FIRE DEPARTMENT.

9

CALIFORNIA'S 58 COUNTIES

Neal (CA-LA-385)

PUBLIC SAFETY — GREAT LAKES:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows – Illinois, Indiana, Wisconsin, Michigan, Kentucky, and Ohio:

Scott Lowry (IL-017) is the new editor of this column. RCMA members wishing to contribute to Public Safety - Great Lakes may send their material to Scott at the following address:

115 S. Chestnut Dr.
Streamwood, IL 90283

Railroads

Gary L. Sturm and
Bill Farmer, Editors

Send information about railroad frequencies and their uses, railroad radio system details, and related questions to:

Gary L. Sturm, 1506 W. Hively Ave., Elkart, IN 46517

Summer greetings to all from your Railroads column editors. This month we have reports on Colorado, Australia, and Indiana.

AAR TEST CENTER

Wallace Abbey of the Association of American Railroads Transportation Test Center in Pueblo CO has forwarded the following radio frequencies they use for communications at their test facility in Colorado. They are:

Ch 1	172.7000 MHz	Ch 5	171.6500 MHz
Ch 2	173.1500 MHz	Ch 6	172.3000 MHz
Ch 3	173.0500 MHz	Ch 7	171.2375 MHz
Ch 4	172.8250 MHz	Ch 8	173.9125 MHz

If any of you readers get out to this area, see if you can receive these channels. They are all voice channels used at the test center. The facility no longer offers tours of the track though.

AUSTRALIAN RAILROADS

Most of the railroads in Australia are owned by the individual states. They have differing track gauges and we assume they each have their own radio frequencies.

We have written to the State Rail Authority of the state of New South Wales. In their reply they didn't indicate the exact radio frequencies they have in use, but they did indicate the frequency bands in use and what the uses were:

26 - 82 MHz:	Engineering services
21 - 74 MHz:	Dispatching
49 - 76 MHz:	Dispatching
14? - 161 MHz:	Dispatching
450 - 470 MHz:	Yards
450 - 470 MHz:	Road Channel
450 - 470 MHz:	Track machines and construction
470 - 500 MHz:	Police

The Western Australian Governmental Railways also responded with the frequency bands they operate in. Westrail is based in Perth, Western Australia. The frequency ranges are:

168 - 169 MHz:	Road Channel (Train Control)
170 - 173 MHz:	Maintenance (Engineering)
450 - 460 MHz:	Yard Operations

Bill is leaving for Australia soon on vacation and perhaps he will be able to locate the exact frequencies for the areas he visits, plus we have some members in Australia who might be able to locate these radio frequencies for us. It would be interesting to know how the Australian Railways use the radio.

REQUEST FOR INFORMATION

Ed (CT-005) would like to know if anyone has the 10-codes for the AMTRAK police for the Northeast Corridor. If you do, please forward them to the editors for publication.

CONRAIL—ELKHART, INDIANA

by Gary (IN-045)

I've moved back to Elkhart IN and have decided to print the radio frequencies used by the Conrail yard here in Elkhart. The yard is the old New York Central Robert Young classification yard and is quite busy these days. The frequencies are:

160.800 MHz	BEND Tower, Toledo West Dispatcher, Jackson West Dispatcher
161.070 MHz	HART Tower and Elkhart Yard usage
161.130 MHz	Maintenance of Way
160.710 MHz	Signal Department
161.340/160.470 MHz	Car Department
160.980 MHz	Hump Control
160.305 MHz	Pullback
160.995 MHz	Pullback
161.385 MHz	Pullback
161.445 MHz	Pullback
160.545 MHz	Police channel #4 (Chicago Dispatcher)
160.680 MHz	Police (Car-to-Car)

My favorite channel is 160.680 MHz, the police car-to-car channel. The officers on duty don't realize that anyone listens to their chatter on that channel and it gets quite interesting at times. It's a good channel to pick up new jokes and chatter about departmental problems, plus personal problems of the officers. It's more interesting than anything you hear on the air from the municipal police!

COMPREHENSIVE NEW FREQUENCY LIST

THE BEST IS BACK!! The "Compendium of American Railroad Radio Frequencies" compiled by Gary L. Sturm and Mark J. Landgraf and computer typeset by Bill Farmer. Includes radio listings for over 470 Railroads, Industrials, Rail Transit Systems, Tourist and Museum operations. U.S., Canadian, and Mexican listings. Over 140 frequency listings for the Santa Fe Railroad alone! No other publication like it in existence. For your first class post-paid copy send a check for $8.00 to:

Mark J. Landgraf
3 Coralberry Circle
Albany, NY 12203

Until next month, happy monitoring! —Gary & Bill

— S P E C I A L F E A T U R E —

U.S.F.S. South Zone Fire Dispatchers' Network (SOUTH ZONE)

by Gregory C. Currivan((CA-SF-005)

To facilitate an understanding of the role of this radio network within the workings of the Forest Service (FS), I have divided this presentation into two major segments, organizational environment and technical detail plus comments on the historical background and the future, supplemented by a map and frequency use data.

ORGANIZATIONAL ENVIRONMENT - The United States Department of Agriculture's Forest Service is composed of nine geographical regions numbered One through Six and Eight through Ten. Region Five, the Pacific Southwest Region, formerly called the California Region, is composed of seventeen National Forests (NF) and one Management Unit all located in the State of California. The only exception is the Toiyabe NF, headquarted in Reno, Nevada, which has land both in California and Nevada and is part of Region Four, the Intermountain Region.

The Forest Service protects over 20 million acres of National Forest land in California. For the purposes of fire resource management Region Five is divided into two zones, North and South. The South Zone (SZ) serves the Sierra, Inyo, Sequoia, Los Padres, Angeles, San Bernardino and Cleveland National Forests. The fire dispatchers of each of the South Zone forests communicate amoung themselves and the SZ dispatcher using the South Zone System. Since 1975 the SZ dispatcher has been co-located with the California Department of Forestry (CDF) Region Six Dispatch Center in Riverside. This location now serves as the Operations Coordination Center (OCC) for the FIRESCOPE Program, acronym for Firefighting Resources of Southern California Organized for Potential Emergencies.

In general, the OOC is concerned with levels of activity within each FIRESCOPE member agency and so is aware of resource availability should a major incident occur. Exceptions are scarce specialized resources, such as fire retardant air tankers, helicopters, and key crews, which are available to other agencies for emergency aid use. Status of these individual units is routinely maintained at the OCC. During major emergencies, the OCC will maintain closer track of uncommitted resources of all types, as resource commitment by agencies becomes heavy. For this purpose, the OCC maintains a current record of all resources assigned by individual agencies to each major incident.

TECHNICAL DETAIL - Two UHF radio pairs and one VHF radio pair connect these many scattered points in Central and Southern California as depicted on the accompaning map and in the chart of frequency use.

The VHF repeater at Frazier Mountain <map reference 3> is the key repeater for the system. From this location VHF signals are received from and transmitted to Santa Ynez Peak <4>, Santiago Peak <9> and Cerro Gordo Peak <6>.

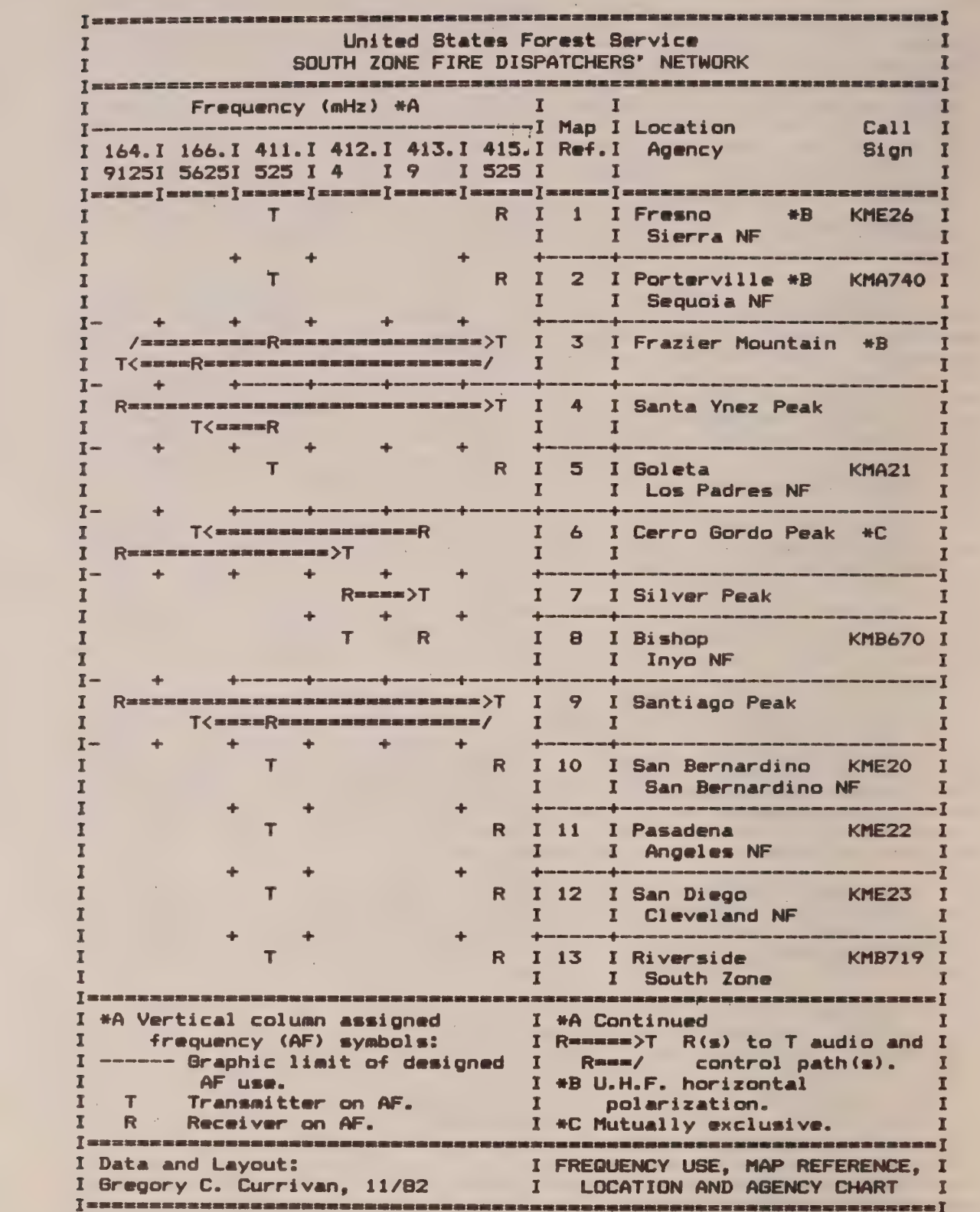
The first UHF pair (the standard 411/415 mHz) is used from Santa Ynez to Goleta <5> and from Santiago to points in the Los Angeles Basin and south to San Diego <12>. This same UHF pair is used in the San Joaquin Valley to tie Fresno <1> and Porterville <2> to a UHF repeater co-located with the VHF repeater at Frazier. These two repeaters are interconnected to retransmit on both their VHF and UHF outputs any signal received on either the VHF or UHF input.

The second UHF pair (the odd 412/413 mHz configuration) connects Cerro Gordo to Bishop <8> and returns by a UHF repeater at Silver Peak <7>. To avoid a lock up path involving the VHF repeater at Frazier and the UHF repeater at Silver, the Cerro Gordo equipment only operates UHF to VHF or VHF to UHF, but not both at the same time.

Because of the long UHF path from Frazier to Fresno and Porterville, 142 and 89 miles respectively, gain antennas are used at all three locations. With the Frazier antenna directed with maximum gain in the direction of Fresno, Porterville was found to have less than a satisfactory level becuase of the angular difference of over 15 degrees. Forest Service technicians knowing that the antenna used at Frazier had a broader lobe in the vertical position with respect to the horizontal positioned turned all the antennas horizontally. This kept the same level signal into Fresno and increased the Porterville signal to a reliable level.

The path from Frazier (8013') to Cerro Gordo (9784'), some 138 miles, is not without its own problems, too, since signals must cross over the eastern side of the Sierra Nevada Mountains in the vicinity of Round Mountain (9884'). In the vocabulary of the radio engineer this is an "extra optical" or "knife edge" path, subject to many variables. Although recent improvements at Frazier and Cerro Gordo have increased the reliability of this path, occasionaly the Dispatcher at Bishop must revert to the California Department of Forestry's "Green Phone", the microwave hot line telephone to contact the Zone Dispatcher.

HISTORICAL COMMENT - The present network replaces the older South



Zone Service Network which was made up of low band equipment of the old Motorola "30 D" vintage. The key repeater, with an input frequency of 38.78 mHz and output of 38.58 mHz, had been located at Breckenridge Mountain and was unprotected from skip. As a result radio traffic from the Boise NF in Idaho frequently operated the repeater and was heard by every dispatcher in South Zone. Also, prior to 1975 the SZ dispatcher was located at Arcadia.

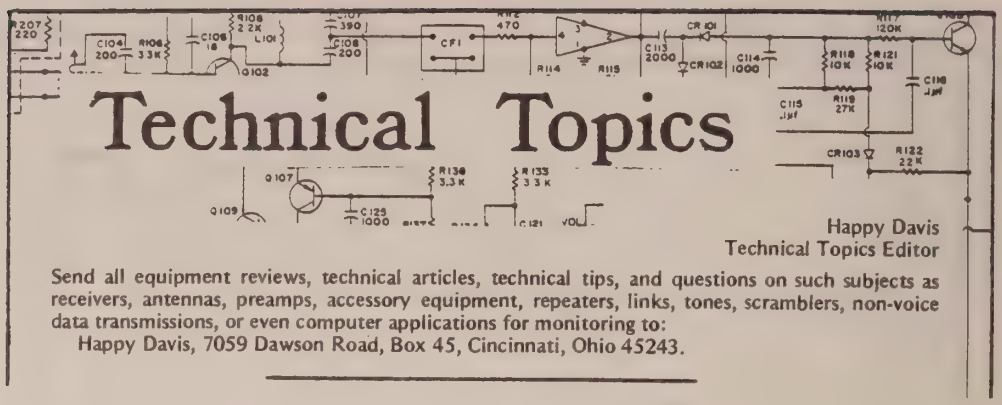
THE FUTURE - In the coming years you can look forward to some reduction in activity on this network because of the increasing use of microwave circuits for intra and inter forest communications and use by Federal agencies of the State of California's Public Safety Microwave System.

I hope that this description has enabled the reader and listener to have an understanding of the technical operation of this network, the organizational structure within which it operates and the need for the information conveyed.

ADDITIONAL READINGS:

A. FIRESCOPE:a new concept in multiagency fire suppression coordination. Gen. Tech. Rep. PSW-40, May 1980, Pacific Southwest Forest & Range Experiment Station, P.O. Box 245, Berkeley, CA 94701.

B. FIRESCOPE! Cooperative communications for effective firefighting. Communications Magazine, July 1982, p. 124-129.



Technical Topics

Happy Davis
Technical Topics Editor

Send all equipment reviews, technical articles, technical tips, and questions on such subjects as receivers, antennas, preamps, accessory equipment, repeaters, links, tones, scramblers, non-voice data transmissions, or even computer applications for monitoring to:
Happy Davis, 7059 Dawson Road, Box 45, Cincinnati, Ohio 45243.

Out-Of-Band Programming The Bearcat Scanners

A technique for searching the UHF government band is presented here. Remember, this sequence will work only on the early versions of the BC-250.

1. Enter search limits 420 and 421 MHz.

2. Press STORE and let the search function run for a few seconds.

3. Stop the search and press RECALL to display a birdie frequency. If no birdie is present, it should be possible to open and close the squelch briefly during step 2 in order to capture a signal in the recall memory.

4. Enter a single high band frequency into the limit (such as 150 MHz).

5. Press RECALL to see the UHF frequency displayed.

6. Press DOWN search key to command the circuit to search below 420 MHz in 12.5 kHz steps.

(NOTE: out-of-band searching will not reverse automatically; you must do it manually with the UP and DOWN keys).

As with any search-discovered frequency on the BC-250 the squelch must be opened to hold that frequency. (No search hold feature was provided on the BC-250).

7. To store an out-of-band frequency, press LOCKOUT during its reception.

To transfer an out-of-band frequency from LOCKOUT to a normal channel:

1. Select a channel into which you wish to transfer the frequency.

2. Step RECALL until the frequency appears.

3. Switch the set off, then on again. This enters the frequency into the normal memory.

A simpler routine for out-of-band reception on the BC-250 has been suggested, but is untested by the author. It is reprinted here for our adventurous readers!

1. Press 421 . Limit . 421 . Limit .

2. Press STORE

3. Open squelch (clockwise), then back again.

4. Press RECALL repeatedly until frequency display is blank.

5. Press 50 . LIMIT (any frequency should work)

6. Press RECALL

7. Manually search up and down.

For low band or high band out-of-band searching, simply substitute 30 or 146 MHz in step 1.

SPLIT-CHANNEL SEARCHING ON THE BC-250

It is possible to receive frequencies separated by only 5 kHz on low and high band, and 12.5 kHz on UHF (older 250's only!)

LOW BAND

1. Enter a low band frequency into store.

2. Press RECALL to display frequency.

3. Enter any two high-band frequencies into limit.

4. Press RECALL to display low band frequency.

5. Press UP or DOWN search key to initiate program.

HIGH BAND

Proceed as above, but swap "high band" for "low band" and vice versa.

UHF BAND

1. Enter 450 MHz and 451 MHz as search limits.

2. Store one or two frequencies within those limits.

3. Enter two new limits of 155 and 156 MHz.

4. Press RECALL repeatedly until a UHF frequency is displayed.

5. Manually search up or down.

Any frequency uncovered while searching using these techniques may be stored and entered using the procedure outlined in steps 7-10 earlier.

BC-220 FREQUENCY LIMIT EXPANSION

Several programming sequences have been reported for opening the limits of the early versions of the BC-220, which used the same microprocessor as in the early BC-250. One of these programs is repeated here.

To Search 136-144 MHz:

1. Turn the set off and on to clear the memory.

2. Manually select any channel.

3. Enter 136.0 Mhz

4. Enter 144.0 and press LIMIT

5. Press SEARCH (reads ERROR)

6. Press LIMIT (reads 136.0 MHz)

7. Press SEARCH

You may restrict this out-of-band search sequence further once steps 1 through 7 have been executed. While the receive is searching, open the squelch at whatever frequency you would like to select as the upper search limit; then:

8. Press 136.0 LIMIT

9. Press SEARCH (reads ERROR)

10. Press LIMIT (reads the frequency at which you stopped searching)

11. Press SEARCH and close squelch again to resume searching.

A number of frequency ranges may be substituted for the examples above, but only in the early versions of the BC-220 with the older microprocessors. But remember, signal sensitivity will decrease rapidly outside of the original tuning ranges.

The BC-100

Even the popular new BC-100 hand-held can be taught new tricks: 50-112, 120 (or lower)-174 and 318-512 MHz programming.

But just because the scanner frequency display shows these numbers does not mean that the scanner is capable of receiving the frequencies. What you are viewing is the free-running algorithm program addressing the microprocessor; neither the oscillator nor the RF amplifier is capable of tracking such a wide range of spectrum.

The practical limits for the BC-100 hand-held so far as reception is concerned are: 30-54, 132-174, and 375-512 MHz--plenty good enough!

Even the receivable extensions are not without limitations, however. Search must often be done manually by repetitive pressing of the up/down search keys, and the frequencies are not storable in memory (so far as we know).

Owners of the new BC-100 may wish to experiment with the following program to extend their receivable frequency ranges:

Press MANUAL to select channel
Press 49 LIMIT
Press 50 LIMIT
Press SEARCH, HOLD, MANUAL
Press 138 LIMIT
Press 137 LIMIT (display will read ERROR)
Press SEARCH, HOLD, LIMIT down

You may now manually step below 138 MHz and autosearch up again to 138 MHz, after which the search will jump to 50 MHz and continue upward. You may manually step back to 50 and then 138 MHz as before.

After you have entered the foregoing routine:

Press decimal, ENTER, SEARCH

Press 406 LIMIT
Press 405 LIMIT (display will read ERROR)
Press SEARCH, HOLD, LIMIT down

You may now manually step below 406 MHz and autosearch up again to 406 MHz (after which the search will automatically jump to 31 MHz.)

Scanner will begin autosearch upward from 318 MHz (although there is no sensitivity at this low frequency). If you wish to go below 318 MHz, press HOLD and then repetitively press LIMIT down.

To search for signals above 50 MHz, follow the foregoing routine, them:

Press decimal, ENTER, SEARCH.

To look for signals below 406 MHz, try the following program:

Press 30
Press 31
Press SEARCH, HOLD, MANUAL

BC-300

To search 136-144 MHz:

Select any channel and enter a VHF low (30-50 MHz) or VHF high (144-174 MHz) frequency into that channel.

Press 157.6 LIMIT; 165.6 LIMIT
Open squelch
Press SEARCH
Press HOLD
Close Squelch
Press ENTER
Press decimal
Press RESUME (BC-300 will now autosearch 136-144 MHz)

An abbreviated version of the 136-144 MHz program follows:

Enter 40 on any channel
Enter search limits 157.6 and 165.6 MHz
Open Squelch
Press SEARCH
Press ENTER
Close squelch (BC-300 will now autosearch 136-144 MHz)

To search 174-174.645 and 420.425-512 MHz

Select any channel and enter a VHF low (30-50 MHz) or VHF high (144-174 MHz) frequency into that channel.

Press 472.8 LIMIT; 512 LIMIT
Open squelch
Press SEARCH
Press HOLD
Close squelch
Press ENTER
Press decimal
Press RESUME (BC-300 will now autosearch 174-174.645, then 420.425-512 MHz).

NOTE: After one search, the last program wil have to be repeated.

To enter a 136-144 MHz frequency into memory:

Select any channel and enter VHF low (30-50 MHz) or aero band (118-136 MHz) frequency.

Add 21.6 MHz to the desired 136-144 MHz frequency and set both search limits to that total number.

Open squelch
Press SEARCH
Press HOLD
Close squelch
Press ENTER
Press decimal
Press HOLD
Open squelch
Close squelch

Enter search limits of any frequency between 157.60 and 165.6 MHz

Open squelch (Frequency will now be stored in memory).

For those of you with Bearcat 101's and access to some type of computer, you might want to take a look at the following program. It takes a frequency, and output's the corresponding switch settings. The original program is by Raymond (CA-OR-56), and was first published in the October 1978 RCMA newsletter. I modified it so that it would handle the entire BC-101 range, and I shortened the programming algorithm considerably. It was written for a TRS-80, but conversion to any basic should be simple enough.

Wayne (CA-LA-119)

```
5 CLS
10 PRINT  :INPUT "Frequency";F$  :IF F$="E" THEN 900 ELSE F=VAL(F$)
30 IF F>=10.745 AND F<=51.7 THEN 100
40 IF F>=143.745 AND F<=184.7 THEN 200
50 IF F>=409.6625 AND F<=512.05 THEN 300
60 PRINT "Out of BC-101 range, try again..." : GOTO 10
100 REM  -- LOW BAND --
110 M=10340 - INT(F*200)
120 GOSUB 500
130 PRINT "14  15"
140 GOTO 10
200 REM  -- HIGH BAND --
210 M=36940 - INT(F*200)
220 GOSUB 500
230 PRINT "15"
240 GOTO 10
300 REM  -- UHF BAND --
310 M=40964 - INT(F*80)
320 GOSUB 500
330 PRINT "14"
340 GOTO 10
500 REM  == PROGRAMMING SUB-ROUTINE ==
510 FOR X=0 TO 12
520 Y=2[(12-X)
530 IF M>Y THEN M=M-Y : PRINT X+1;" ";
540 NEXT X
550 RETURN
900 END
```

VHF Marine

Send information, articles, frequencies and their use, and questions that relate to private, commercial, and Coast Guard VHF maritime and inland waterways radio communications to:

Emmett L. Baxter, Jr., 424 W. 22nd St., Norfolk, VA 23517

HELLO AND WELCOME TO YOUR JUNE VHF MARINE COLUMN.THE MAIL DID NOT BRING IN MUCH THIS MONTH. I KNOW THAT WE CAN DO BETTER.

BEFORE I GO ANY FURTHER I WOULD LIKE TO APPOLIGIZE TO DONALD(DE-001) AND ANYBODY ELSE FROM DELAWARE.MY PROOF READING DID NOT CATCH HOW I WAS SPELLING DELAWARE.I WILL MAKE EVERY EFFORT TO IMPROVE THIS IN THE FUTURE.

FROM ALEX (CANADA-040)COMES THE FOLLOWING LIST OF CANADIAN VHF MARITIME MOBILE RADIO CHANNELS:

CHANNEL NUMBER	SHIP TRANSMIT	COAST TRANSMIT	TRAFFIC
65A	156.275	156.275	PORT OPERATIONS
06	156.300		INTERSHIP (PRIMARY)
66	156.325	156.325	PORT OPERATIONS

VHF Marine continued

07	156.350	156.350	COMMERCIAL
67	156.375	156.375	COMMERCIAL,NON-COMMERCIAL
08	156.400		INTERSHIP (SECONDARY)
68	156.425	156.425	INTERSHIP,MARINAS,YACHT CLUBS
09	156.450	156.450	PORT OPERATIONS
69	156.475	156.475	COMMERCIAL,NON-COMMERCIAL
10	156.500	156.500	PORT OPERATIONS
70	156.525		NON-COMMERCIAL
11	156.550	156.550	PORT OPERATIONS
71	156.575	156.575	NON-COMMERCIAL,MARINAS
12	156.600	156.600	PORT OPERATIONS
72	156.625		COMMERCIAL,NON-COMMERCIAL
13	156.650	156.650	PORT OPERATIONS
73	156.675	156.675	COMMERCIAL,NON-COMMERCIAL
14	156.700	156.700	PORT OPERATIONS
74	156.725	156.725	SHIP MOVEMENTS
15	156.750	156.750	GOVERNMENT OPERATIONS(1 WATT ONLY)
75	-------	-------	GUARD BAND FOR CHANNEL 16
16	156.800	156.800	DISTRESS,SAFETY,CALLING
76	-------	-------	GUARD BAND FOR CHANNEL 16
17	156.850	156.850	PILOTAGE (1 WATT ONLY)
77	156.875		COMMERCIAL,NON-COMMERCIAL
18	156.900	156.900	COMMERCIAL
78	156.925	156.925	COMMERCIAL
19	156.950	156.950	CANADIAN COAST GUARD
79	156.975	156.975	COMMERCIAL
20	157.000	161.600	PORT OPERATIONS
80	157.025	157.025	COMMERCIAL
21A	157.050	157.050	CANADIAN & U.S. COAST GUARD
21B		161.650	CONTINUOUS MARINE WEATHER
81	157.075	157.075	CANADIAN & U.S.C.G. ANTI-POLLUTION
22A	157.100	157.100	CALLING CANADIAN & U.S.COAST GUARD
82	157.125	157.125	CANADIAN & U.S.COAST GUARD
23	157.150	161.750	GOVERNMENT COAST STATIONS
83A	157.175	157.175	CANADIAN & U>S>COAST GUARD
83B		161.775	CONTINUOUS MARINE BROADCASTS
24	157.200	161.800	GOVERNMENT COAST STATION
84	157.225	161.825	GOVERNMENT COAST STATION
25	157.250	161.850	GOVERNMENT COAST STATION
85	157.275	161.875	GOVERNMENT COAST STATION
26	157.300	161.900	GOVERNMENT COAST STATION
86	157.325	161.925	GOVERNMENT COAST STATION
27	157.350	161.950	GOVERNMENT COAST STATION
87	157.375	161.975	GOVERNMENT COAST STATION
28	157.400	162.000	GOVERNMENT COAST STATION
88	157.425	162.025	GOVERNMENT COAST STATION

CHANNELS 21A & 83A ARE NOT FOUND ON MARINE RADIOS,IN CANADA,AND ARE USED FOR PRIVATE COAST GUARD COMMUNICATIONS.THEY CAN BE PARTICULARLY INTERESTING ALTHOUGH THEY ARE NOT OFTEN USED IN THE LONDON,ONTARIO AREA.

FROM GARY (IL-073) CAME A VERY INTERESTING ARTICLE CONCERNING THE FERRY SYSTEM IN THE SEATTLE,WASHINGTON AREA.IT WILL BE IMPOSSIBLE TO PRINT THE ENTIRE ARTICLE BUT I WILL HIT THE HIGHLIGHTS.

MOST OF THE JUMBO CLASS FERRIES CAN CARRY AROUND 200 CARS AND TRUCKS AND 2000 PASSENGERS.

WHEN THE FERRY LEAVES THE DOCK IT MUST COMMUNICATE WITH THE COAST GUARD ON CHANNEL 14 (156.700 - VESSEL TRAFFIC SYSTEM).THEN IT CONTACTS ITS FERRY OPERATIONS VIA CHANNEL 79A (156.975).

THE STATE OF WASHINGTON OPERATES A FLEET OF 22 LARGE FERRIES.

THE RADIO SYSTEMS ON THE FERRIES CONSIST OF EQUIPMENT ON EACH OF ITS TWO BRIDGES TO MONITOR THE FOLLOWING FREQUENCIES ALL AT ONE TIME: CHANNEL 13 (156.650) SHIP TO SHIP,CHANNEL 14 (156.700) COAST GUARD VESSEL TRAFFIC SYSTEM,CHANNEL 11 (156.550)CANADIAN AND SOME VESSELS CHANNEL 22 (157.100) COAST GUARD.CHANNEL 79A (156.975) IS MONITORED AS THE OPERATIONS CHANNEL FOR THE FERRIES.CHANNEL 6 (156.300) IS USED TO COMMUNICATE WITH TUG BOATS AND MOVEABLE SPAN BRIDGES.EACH OF THE FERRIES COMMUNICATES WITH THE OPERATIONS OFFICE AT PIER 52 THROUGH TWO REMOTE CONTROLLED BASE STATIONS.ONE STATION IS ON GALBRAITH MOUNTAIN NEAR BELLINGHAM AND THE OTHER IS ON GOLD MOUNTAIN NEAR BREMERTON WHICH ARE NEAR EACH END OF PUGET SOUND.

VHF Marine continued

MOST OF THE DOCKS ARE ALSO EQUIPPED WITH VHF RADIOS ALSO.SOME ALSO HAVE RADIOS TO COMMUNICATE WITH THE STATE HIGHWAY DEPARTMENT.

IN THE FUTURE LOOK FOR INFORMATION LIKE PILOT ASSOCIATIONS FREQUENCIES (PILOT BOATS),MARINAS AND YACHT CLUBS,MARITIME BUSINESS CONCERNS (MARITIME ONLY),COAST GUARD PROFILES,MARINE INFORMATION BROADCAST SCHEDULES (COAST GUARD),MARINE WEATHER INFO.,AND ALL SORTS OF OTHER GOODIES.

I WOULD LIKE TO REQUEST ANYBODY HAVING ANY INFORMATION ON ANY OF THE ABOVE TOPICS AND/OR ANY OTHERS PLEASE FORWARD THEM TO ME FOR PUBLICATION.

LISTENING WATCH:::::::(HAVE YOU HEARD ANY OF THESE UNITS TODAY??)

DELAWARE PILOTS(KUF-842)156.475,156.700,156.800,156.975
CIRCLE LINE SIGHTSEEING BOATS (N.Y.HARBOR)(KQU-510)157.025,156.800
U.S.COAST GUARD ACADEMY YACHTS(NEW LONDON,CONN.) CH. 9 (156.450)
U.S.C.G.NEW ORLEANS/LAKEFRONT CIVIL DEFENSE CH.22 (157.100)
U.S.C.G.SHIPS DULUTH-SUPERIOR HARBOR AREAS CH. 10 (156.500)
U.S.C.G.CUTTER DOGWOOD (WLR-259),PINE BLUFF,AR.
U.S.C.G.CUTTER WALNUT (WLM-252),SAN PEDRO,CA.
U.S.C.G.CUTTER BAYBERRY (WLI-65400),SEATTLE,WASH.
U.S.C.G.CUTTER MALLOW (WLB-396),HONOLULU,HI.
U.S.C.G.CUTTER LAUREL (WLB-291),KETCHIKAN,AK.

CHANNEL OF THE MONTH: 13 (156.650)

SHIP TRANSMITS AND RECEIVES ON 156.650.THIS CHANNEL IS USED FOR NAVIGATIONAL USE ONLY.FROM SHIP'S BRIDGE TO SHIP'S BRIDGE.THIS CHANNEL IS AVAILABLE TO ALL VESSELS.THIS CHANNEL IS REQUIRED ON LARGE PASSENGER AND COMMERCIAL VESSELS.(TUGS SEEM TO USE THIS CHANNEL MORE THAN ANYBODY ELSE)THE PRIMARY USE OF THIS CHANNEL IS FOR VESSELS MEETING AND PASSING SITUATIONS.THIS IS ALSO THE PRIMARY CHANNEL USED AT LOCKS AND BRIDGES.

WITHIN THE NEXT FEW MONTHS I WILL PUBLISH A LIST OF US MARITIME CHANNELS TO GO WITH THE ONE FOR CANADA PUBLISHED IN THIS MONTHS COLUMN.

WELL THAT'S ABOUT IT FOR THIS MONTH.LET'S KEEP THE POSTMAN BUSY THIS MONTH WITH LOTS OF MAIL. SEE YOU NEXT MONTH.

R. C. M. A. NEW MEMBERS LIST
4 11 1983

AZ	052	MC CORD, ROBERT D.;8540 WANDA RD;TUCSON, AZ 85704
AZ	053	THOMPSON, WILLIAM E;6723 NORTH 44TH AVE;GLENDALE, AZ 85301
CAAL045		PARKS, DALE L;P.O. BOX 1634;SAN LEANDRO, CA 94577
CAKE020		SABSEVITZ, LT COL ALAN D* ADDRESS WITHHELD BY REQUEST
CALA525		MARSHALL, CRAIG;P.O. BOX 3;LYNWOOD, CA 90260
CALA526		CHERNEY, MARTIN M;3719-1/2 TEMPLE CITY;ROSEMEAD, CA 91770
CALA527		THOMPSON, BRUCE JR;460 W DORAN 112;GLENDALE, CA 91203
CALA528		WEEKS, RUSSELL R* ADDRESS WITHHELD BY REQUEST
CALA529		SEAMAN, CHARLES* ADDRESS WITHHELD BY REQUEST
CAME017		PAGANINI, DANA;57 VENDOLA DR;SAN RAFAEL, CA 94903
CAOR257		BROWN, EDWARD W;11592 LUZON ST;CYPRESS, CA 90063
CAOR258		AIELT, DAVE;12911 8TH STREET;GARDEN GROVE, CA 92640
CASR019		MATHEW, CRAIG T;5455 8TH ST 21;CARPINTERIA, CA 93013
CAS2008		JONES, DALE W;3130 ROOT AVENUE;CARMICHAEL, CA 95608
CT	075	FRIEDLANDER, STEVEN;289 COLONIAL DRIVE;FAIRFIELD, CT 06430
CT	076	ROBINSON, DANIEL J;436 DAVIS ST;OAKVILLE, CT 06779
FL	175	WINSTON, WAYNE C/O BOYS HOME;P.O. BOX 168;DANIA, FL 33004
FL	176	HARRIGAN, MIKE D;1145 PHEASANT CIRCLE; WINTER SPRINGS, FL 32708
GA	050	JOHNSTON, GREG;620 GLENDALE AVE;DECATUR, GA 30030
IA	043	WEBER, WAYNE;205 SOUTH 9TH ST;CLEAR LAKE 50428
IL	259	EPPINNETTE, PHIL;P.O. BOX 337;CHARLESTON, IL 61920
IL	260	ZEILNER, FRED J JR;6142 KNOLL WICK RD APT 201; WILLOWBROOK, IL 60514
IL	261	REDICK, STEVEN;5431 N EASTRIVER RD APT 1605;CHICAGO, IL 60656

IN 077 SPENCER, PAUL M;P.O. BOX 331;CHARLESTOWN, IN 47111
IN 078 HORVATH, LOUIE;P.O. BOX 2528;SOUTH BEND, IN 46680
IN 079 SPENCER, PAUL M;P.O. BOX 331;CHARLESTON, IN 47111
LA 036 COX, JERRY;P.O. BOX 635;PLAIN DEALING, LA 71064
MA 135 WENTZELL, ROBERT R; ASHBY ROAD;BEDFORD, MA 90130
MD 077 HAHN, WILLIAM E * ADDRESS WITHHELD BY REQUEST
MD 078 KENNEDY, BARBARA J;17010 KING JAMES WAY 303;
GAITHERSBURG, MD 20877
NJ 173 COHEN, IRA;P.O. BOX 269;CALDWELL, NJ 07006
NJ 174 RANGES, DANIEL;41 ORCHARD RD;DEMAREST, NJ 07627
NY 255 SMITH DONALD B;214 BERKELEY ST;ROCHESTER, NY 14607
PA 185 KLEINFELDT, WILLIAM R;220 E MERMAID LAND UNIT 169;
PHILADELPHI 19118
SC 020 MINOR, TOM;3329 MARGRAVE RD;COLUMBIA, SC 29203
TX 132 GRAY, JOHN S;3402 OCEAN DRIVE 26;CORPUS CHRISTI, TX 78411
TX 133 MAXWELL, GLEN;10103 BROCKBANK;DALLAS, TX 75229
TX 134 ENGLISH, BILLY JACE;ROUTE 2 BOX 100;BEN WHEELER, TX 75754
VA 076 VIETH, PETER D;4785 GOLFVIEW DR;ROANOKE, VA 24019
WA 047 SHEEHAN, DON;2101 DEXTER WAY 301;SEATTLE, WA 98108
WA 048 HERTER, JUSTIN;135-154TH PLACE NE;BELLEVUE, WA 98007
WI 063 MARTIN, DON;2021 DOUGLAS AVE;RACINE, WI 53402
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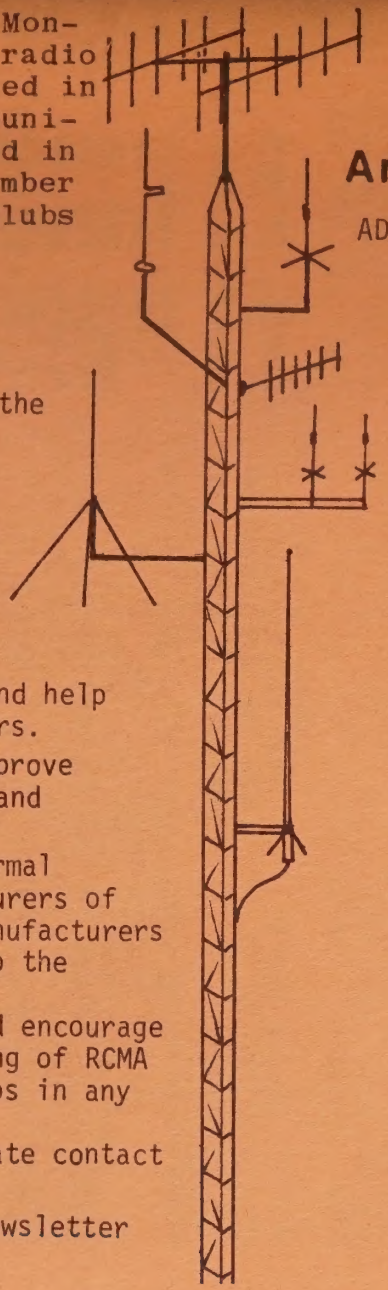
NW TERRITORIES X0E 0R0 CAN
CANA101 THIBODEAU, GILLES;3653 MONTCALM ST LAC-MEGANTIC;
QUEBEC G6B 2H8 CANADA

The Radio Communications Monitoring Association is a radio club for persons interested in listening to two-way communications. RCMA was founded in May 1975 and is a Full Member of North American Radio Clubs (ANARC).

The goals of RCMA are:

1) To provide a fraternity for those who seriously pursue the hobby of monitor radio listening.
2) To try to be knowledgeable about two-way radio systems and operations.
3) To promote an understanding of the legal and ethical uses of monitor receivers.
4) To share information with and help other monitor radio listeners.
5) To try to understand and improve receivers, antenna systems and related equipment.
6) To offer suggestions and formal recommendations to manufacturers of monitor receivers and to manufacturers of other products related to the hobby.
7) To offer suggestions for and encourage the organizing and conducting of RCMA meetings and tours for groups in any geographic area.
8) To encourage and to facilitate contact between members.
9) To publish a regular club newsletter devoted to the hobby.



RCMA
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